

Zenon Performance Appraisal

March 2008 Update

Executive Summary For the Zenon Treatment Technologies Incorporated in an On-site Wastewater Treatment and Renovation System

This Zenon Performance Appraisal, dated March 2008, updates the previous Appraisal prepared by the Department in November 2006. This update incorporates discharge monitoring reports (DMRs) from November 2006 - January 2008, amends previous graphs and contains specific updates on the 12 Zenon facilities operating in Connecticut. The updated information is printed in a blue italicized font in order that the reader can focus on the updated material.

Pursuant to Connecticut General Statutes 22a-430 and Regulations of State Agencies 22a-430 (1) – (8) the Commissioner issues water discharge permits for large-scale (> 5,000 gallons per day) on-site wastewater treatment and renovation systems. Prior to issuing a permit the Department determines if the proposed system to treat the discharge will protect the waters of the state from pollution. The pollutants of concern in domestic sewage being discharged to groundwaters include: nitrogen, bacteria, virus, and phosphorus. Sometimes alternative treatment technology (ATT) needs to be incorporated into a site specific design. In some instances the reason for including ATT are: the level of development, the soils, the hydrogeologic setting, or the requirement to recycle a portion of the treated wastewater.

One of the technologies that consultants have incorporated into an on-site wastewater treatment and renovation system is the Zenon Wastewater Treatment System. This treatment consists of pretreatment using trash traps, equalization followed by aerobic and anoxic bioreactors and membrane filters. Chemical addition can be employed for phosphorus removal and ultraviolet disinfection or ozone is used for pathogen reduction.

Presently in Connecticut 12 permitted facilities utilize the Zenon technology. The technology is used for treatment, or treatment and recycle. Permit limitations are established on a site-specific application.

Zenon Treatment Facilities

For Treatment:	Salisbury School, Salisbury The Hearth, Madison Joel Barlow High School, Redding
For Treatment and Recycle:	Kensington Green, Southbury Westbrook Factory Stores, Westbrook Goose Lane Medical, LLC, Guilford Whitby School, Greenwich Weston Schools, Weston Water's Edge, Westbrook Clinton Crossing, Clinton Mallory Brook Plaza, Barkhamsted Brunswick School, Greenwich

General Update (November 2006 through January 2008)

This Executive Summary contains an updated review of the data presented in the Executive Summary published in November 2006. Specific facility updates can be found herein.

The November 2006 report identified six facilities for which, based on effluent compliance reviews, issuances of Notices of Violation (NOV's) were recommended. These NOV's were issued to all six facilities on November 30, 2006. Corrective actions taken by the facilities followed different pathways. Summaries of these actions can be found in the specific facility updates.

Corrective actions taken by four of the six facilities issued NOVs (Kensington Green, Brunswick School, Weston Schools, and Goose Lane) resulted in improved compliance by July 2007 at the latest. Initial action taken by Waters Edge resulted in compliance for six months, until total phosphorus exceedances reappeared. Further corrective action was taken in October and November 2007, which consisted in large part of completely switching to phosphate free detergents in the resort's laundry facility. Test results for December and January meet phosphorus limits. Staff has recommended the issuance of formal enforcement action to Mallory Brook Plaza, in order to bring about the corrective actions necessary.

The remaining six facilities were issued letters on December 14, 2006, as recommended, requesting explanations for noted violations. Responsive explanations were received from all of these facilities and the Department continues to track results.

Groundwater monitoring located within the zone of influence of the permitted systems has continued to consistently show levels of total nitrogen, total phosphorus and fecal coliform that are suitable for drinking and other domestic uses without treatment, and do not appear to be a cause for concern.

Summary tables of effluent and groundwater monitoring results are provided for each facility.

As a final update, it should be noted that all of the DEP administrative recommendations detailed in the November 2006 Executive Summary have been or are in the process of being implemented.

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Brunswick School, Greenwich, CT

Permit Issuance Date: 02/07/01; modified on 12/22/04

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Phosphorus Fecal Coliform

Application: Institutional

Type: Treatment/Recycle

Class: New Modification

Pretreatment discharge type: Constructed Fill

Point of Environmental Concern: Toe of slope

Comments:

<u>Compliance summary (1/05 – 8/06)</u>		<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	23 violations/40 tests	43
Total phosphorus (max limit = 15 mg/l)	4 violations/40 tests	90
Fecal coliform (avg limit = 4 col/100 ml)	Inconclusive results (reporting errors)	---
BOD (avg. limit = 20 mg/l)	0 violations/20 test months	100
TSS (avg. limit = 20 mg/l)	0 violations/20 test months	100

Issues

- Serious inflow/infiltration problems are suspected as a likely significant factor in poor nitrogen removal performance.
- There were no phosphorus violations since August 2005.
- A new Zenon treatment system was installed 12/04.

Recommendations

- A Notice of Violation (NOV) is to be issued.

Groundwater summary

- Groundwater monitoring data has not been submitted to the Department.

Update (November 2006 – January 2008)

- *11/30/06 – An NOV was issued for non-compliance with effluent limits on total nitrogen.*
- *The NOV response consisted of attempts to identify and remove unknown sources of clean water inflow to the system which were believed to compromise effective treatment. This process was ineffective.*
- *On May 7, 2007 a new operator was retained. The new operator was able to identify a problem with the computer-programmed control of system recirculation rates, leading to process chemistry irregularities and treatment deficiencies, and requiring a Zenon representative to rewrite programming instructions.*

Groundwater summary

- *Data from five sampling events have now been submitted. One well (MW-A) had one uncharacteristically high total nitrogen result, and another (MW-F) had one slightly high result. Another high result was reported for a well MW-E, which is not a well for which there is a permit monitoring requirement, or for which the location is known. All other results for total nitrogen, total phosphorus and fecal coliform indicate that groundwater is consistently within levels that are suitable for drinking without treatment.*

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BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Brunswick School

Permit No.: UI0000332

Permit Issuance Date: 12/22/2004

Treatment Type: Zenon/Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	15200	12400	30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Apr-01	3080	1068	3*	2.8*	7	4*	13.7	32	0
Apr-01								23	
May-01	3470	1296	6*	3.5*	5	3*	36	20.3	2.5*
May-01							34	18	
Jun-01	3250	652	1*	1*	4	2.5*	13.4	46.5	0
Jun-01								24	
Jul-01	1270	670	1*	1*	3	2.5	1.34	17.8	0
Jul-01								17	
Aug-01	1050	564	1*	1*	2	1.5*	1.79	14.3	0
Sep-01	1420	950	1.18	1.09*	25	13*	6.92	17.3	0
Oct-01	4780	1305	4.19	2.6*	11	7.5	10	24	0
Oct-01								21	
Nov-01	2150	1322	2.61	1.8*	6	3.5	8.6	48.5	0
Nov-01								31	
Dec-01	2660	1181	7.51	4.25*	1*	1*	34	28	0
Dec-01								24	
Jan-02	2210	1096	3.27	2.13*	9	5*	17.89	37.8	0
Jan-02								35	
Feb-02	3120	1385	6.45	3.73*	3	2*	9.95	47.5	0
Feb-02								31	
Jan-03	2780	1344	39	20.5	5*	5*	3	20	0

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UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	15200	12400	30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Feb-03	2640	1422	10*	6*	5*	5*	1.7	26	
								16	
Mar-03	2260	868	10*	6*	5*	5*	1*	32	0
Mar-03								28	
Apr-03									
May-03	2130	1166	5*	3.5*	7.4	6.2*	2.5	25	0
May-03								25	
Jun-03	740	291	6	4	5*	5*	4.4	25	0
Jun-03								22	
Jul-03	690	417	6	6	5*	5*	2.8	19	0
Jul-03								18	
Aug-03	900	561	3	2.5	5*	5*	8.56	26	0
Aug-03								20.2	
Sep-03	3000	1357	4	3	5*	5*	13.04	28.2	0
Sep-03								17	
Oct-03									
Nov-03	2330	1237	3*	2.5*	5*	5*	4.85	27	0
Nov-03								26	
Dec-03									
Jan-04	2725	1717	2*	2*	5*	5*	5.63	17	0
Feb-04	2685	1383	2.5	2.25*	5*	5*	6.3	13	0
Mar-04									
Apr-04	3390	1766	12	10	7.5	6.25*	6.1	17	0
Apr-04								17	
May-04									
Jun-04									
Jul-04									
Aug-04									
Sep-04									

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UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	15200	12400	30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Oct-04									
Nov-04									
Dec-04									
Jan-05	22540	3964	1*	1*	2.5	1.75*	11.1	4.18	RE
Feb-05	20780	4673	2.65	1.8	1	1	20.7	7.32	RE
Feb-05							19.2		
Mar-05	18070	4486	1.1	1	1	1	11.9	3.22	RE
Apr-05	27330	5925	1*	1*	1.5	1.25*	20.1	6.45	RE
Apr-05							12.5		
May-05	23950	3762	1.23	1.12*	1*	1*	63.6	16.5	RE
Jun-05	6340	1438	6*	3.5*	4*	2.5*	6.3	4.8	RE
Jul-05	13180	2247	2.72	1.86	2	1.5	9.58	16.5	RE
Aug-05	17020	2855	3.2	2.75	3.33	2.16*	26.4	18.3	RE
Aug-05								15.9	
Sep-05	13360	4689	1*	1*	2	1.5	15.54	7.69	RE
Oct-05	29220	5957	1.23	1.18	1*	1*	30.8	6.4	RE
Oct-05							12.7		
Nov-05	22600	4235	1.27	1.14*	1*	1*	23.66	9.05	RE
Dec-05	23950	5290	6	3.5*	24	12.5*	24	11.8	RE
Jan-06	36550	6877	1.3	1.15*	2	2	10.8	5.58	RE
Feb-06	23640	4754	1*	1*	4	2.5*	14	9	RE
Feb-06							14		
Mar-06	15440	3175	3*	2*	1*	1*	12.2	7.21	RE
Apr-06	12670	2954	1.01	1*	1*	1*	13	11.4	RE
Apr-06							20		
May-06	23950	3762	1.5	1.25*	1	1	15.6	10.8	RE
Jun-06	12750	2350	1*	1*	1	1*	8.01	8.31	RE
Jul-06	5810	1604	1*	1*	1*	1*	23	12.6	RE
Jul-06							27		

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UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	15200	12400	30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Aug-06	8090	1886	1*	1*	2	1.5*	27	10.8	RE
Sep-06	21950	3944	1*	1*	1*	1.5*	4.78	2.85	10*
Sep-06			1*		2		19.29	7.42	10*
Oct-06	10300	2718	1*	1*	2	1	13.6	9.22	10*
Oct-06			1*		2		17.93	4.57	10*
Nov-06	16700	4115	1*	1*	1	1*	11.76	8.92	2*
Nov-06			1*		1*		9.01	5.63	2*
Dec-06	13000	3365	1.48	1.24*	1	1	15.34	8.31	2*
Dec-06			1*		1		13.8	8.14	
Jan-07	12740	3579	1*	1*	2	1.5*	14	7.05	2*
Jan-07			1*		1*		6.24	3.5	
Feb-07	6540	3476	1*	1*	2	1.5*	12.35	11.2	2*
Feb-07			1*		1		11.79	8.12	
Mar-07	10360	3292	1.12	1.06*	3	2.5	7.42	4.44	2*
Mar-07			1*		2		6.96	3.16	
Apr-07	11250	3210	1*	1*	1*	1*	14.89	7.52	2*
Apr-07			1*		1*		6.24	6.08	
May-07	5425	3420	10.2	5.6*	3	2*	18.11	7.46	2*
May-07			1*		1*		10.83	5.97	
Jun-07	9670	2785	1*	1*	1*	1*	8.13	10	2*
Jun-07			1*		1*		4.89	8.98	
Jul-07	3377	2760	1*	1*	9	5	7.91	9.15	2*
Jul-07					1		5.9	8.21	
Aug-07	4270	2941	3.77	2.4	2	1.5	8.13	5.5	2*
Aug-07			1*		1		5.68	3.39	
Sep-07	4640	3298	3.21	2.1*	1	1*	8.11	3.61	2*
Sep-07			1*		1*		7.23	2	
Oct-07	16210	5012	56.5*	20	2	1.3	50.53	22.6	2*
Oct-07			3*		1		6.87	8.49	

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UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

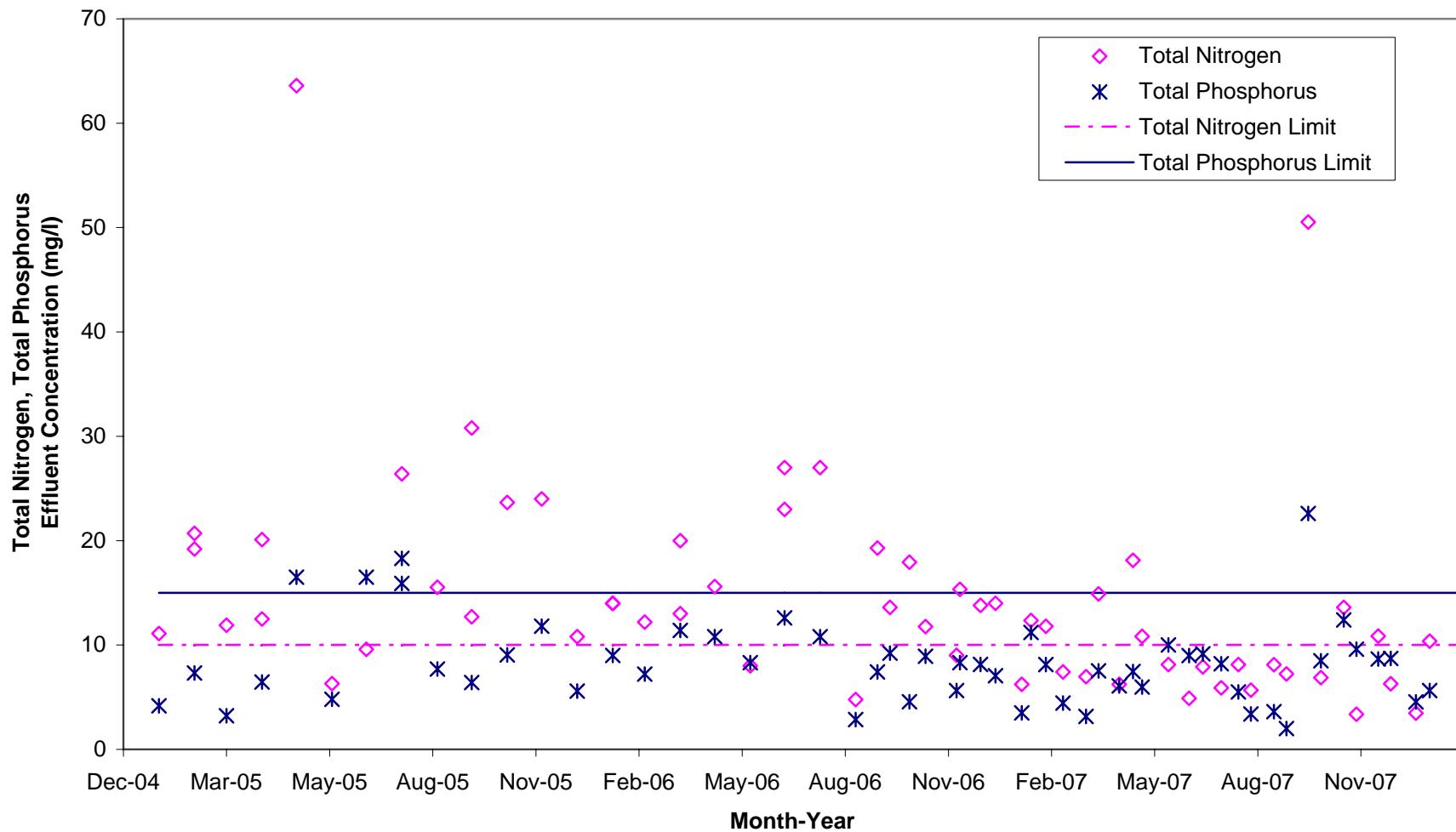
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	15200	12400	30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Nov-07	5060	3044	9.4	6.56	1*	1*	13.6	12.4	2*
Nov-07			3.77		1*		3.36	9.6	
Dec-07	3780	2938.1	30.8	16.9*	1	1*	10.85	8.66	2*
Dec-07							6.29	8.71	
Jan-08	3460	2627.3	3*	4.53*	1*	2.25*	3.47	4.55	2*
Jan-08			6.06		3.5		10.37	5.64	

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2005 - JANUARY 2008
PERMIT NO. UI0000332 - BRUNSWICK SCHOOL



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Brunswick School
Permit No.: UI0000332

Sampling Frequency:

No. of Monitoring Wells:

Review Period: 1/05-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Aug-01	MW A	2.24	1.15	10*
	MW B	dry	dry	dry
	MW C			
	MW D			
	MW F			
Feb-02	MW A	RE	RE	10*
	MW B	RE	0.01*	10*
	MW C			
	MW D			
	MW F			
Mar-03	MW A	1*	1.9	0
	MW B	11.7	0.5*	0
	MW C			
	MW D			
	MW F			
May-03	MW A	dry	dry	dry
	MW B	11	8.4	0
	MW C			
	MW D			
	MW F			
Aug-03	MW A	DRY	dry	dry
	MW B	7.2	4.5	0
	MW C			
	MW D			
	MW F			
Nov-03	MW A	dry	dry	dry
	MW B	2.26	20	0
	MW C			
	MW D			
	MW F			
Feb-06	MW A	1.24	0.68	0
	MW B	dry	dry	dry
	MW C	7.02	1.1	0
	MW D	0.18	0.03	0
	MW E	0.86	0.06	0
May-06	MW A	2.07	5.2	0
	MW B	dry	dry	dry
	MW C	0.99	0.32	0
	MW D	0.16	0.09	0
	MW E	9.62	1.3	0

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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	Fecal Coliform (col/100ml)
Aug-06	MW A	7.87	200	0
	MW B	dry	dry	dry
	MW C	1.89	0.37	200+
	MW D	0.8	0.28	1
	MW E	12.3	1.6	1
Nov-06	MW A	5.75	3.1	0
	MW C	2.36	0.33	6
	MW D	0.13	0.3	0
	MW E	15.3	1.5	0
Feb-07	MW A	1.5	5.2	0
	MW C	6.79	0.89	0
	MW D	0.16	0.05	0
	MW F	10.57	4.3	0
May-07	MW A	3.12	2.4	.
	MW C	0.34	1.1	0
	MW D	0.26	1.2	0
	MW F	9.24	2.3	0
Aug-07	MW A	24.1	1.6	0
	MW C	5.91	1.2	93
	MW D	0.29	2	188
	MW F	6.06	1.6	0
Nov-07	MW A	2.37	2.5	0
	MW C	5.97	0.31	9
	MW D	0.15	0.07	0
	MW E	8.94	4.7	0

* = below reported value

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Clinton Crossing, Clinton, CT

Permit Issuance Date: 09/11/96

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Phosphorus Fecal Coliform

Application: Commercial

Type: Treatment/Recycle

Class: New

Pretreatment discharge type: Constructed Fill Liner

Point of Environmental Concern: Toe of slope

Comments:

<u>Compliance summary (1/03 – 8/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	11 violations/84 tests 87
Total phosphorus (max limit = 15 mg/l)	0 violations/84 tests 100
Fecal coliform (avg limit = 4 col/100 ml)	0 violations/33 test months 100
BOD (avg. limit = 20 mg/l)	0 violations/33 test months 100
TSS (avg. limit = 20 mg/l)	0 violations/33 test months 100

Issues

- There were only occasional (3) minor violations of the total nitrogen limit since August 2005.

Recommendations

- A letter is to be sent which cites the violations, requests that an explanation be provided, and reminds the permittee of violation reporting requirements.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment. There were reporting issues with several monitoring periods that need to be addressed with the permittee.

Update (November 2006 – December 2007)

- 12/14/06 – The recommended letter was issued.
- Through December 2007, compliance with permit limits has been met for total phosphorus, BOD, TSS and fecal coliform. There were occasional exceedences of the permit limit for total nitrogen.

Groundwater Summary

- Total nitrogen, total phosphorus, & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Clinton Crossing

Permit No.: UI0000296

Permit Issuance Date: 9/11/1996

Treatment Type: Zenon/Recycle with Phosphorus Removal

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jan-03	290	40	1.11	1.05	3	2	14.01	3.35	0
Feb-03	480	81	1	1	7	6.5	6.27	3.53	0
Mar-03	1350	257	1.02	1.01	1	1	10.8	1.4	0
Apr-03									
May-03	4320	436	0	0	0	0	9.6	1.5	0
Jun-03	2400	837	9.3	6.25	0	0	8.9	1.2	0
Jul-03	6275	1980	0	0	0	0	9.58	2.1	0
Aug-03									
Sep-03	4170	1488	0	0	0	0	14	14	0
Oct-03	6265	1653	18	9	6.4	3.2	6.8	3.6	0
Nov-03	6497	1371	2.8	1.4	0	0	8.1	2	0
Dec-03	6497	1768	0	0	0	0	6.5	1.6	0
Jan-04	3695	771	0	0	10	5	6.8	2.6	0
Feb-04	1707	609	0	0	8	7	5.1	0.19	0
Mar-04	1955	529	0	0	1	0.5	4.2	0.17	0
Apr-04	3000	1057	0	0	2	1	35.7	0.95	0
Apr-04							11.9		
May-04	1715	633	0	0	2	1	6.55	0.95	0
Jun-04	3860	965	4*	4*	0	0	17	0.08	RE
Jul-04	2450	1129	4*	4*	0	0	7.7	0.053	RE

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Aug-04	3145	1084	4*	4*	4	2	20	0.032	RE
Sep-04	2223	445	4*	4*	6	3	14	0.34	RE
Oct-04	1930	554	4*	4*	5	2.5	7.9	0.38	RE
Nov-04	1660	208	4*	4*	3	2	8.2	0.505	RE
Dec-04	11640	852	4*	4*	2	1*	7.8	5.8	RE
Jan-05	75	8	4*	4*	1	1*	6.3	5.2	0
Feb-05	3213	799	4*	4*	1	1	11	0.35	0
Mar-05	827	182	4*	4*	5	3.5	4	0.035	0
Apr-05	3180	177	4*	4*	1	1	8.2	0.089	0
May-05	1300	206	4*	4*	1	1	7.3	0.17	0
Jun-05	2027	267	4*	4*	1	1	9.8	0.066	0
Jul-05	1183	367	4*	4*	9	4.5	9.4	3.4	0
Aug-05	1683	898	4*	4*	11	5.5	8	8	0
Sep-05	11400	1361	4*	4*	21	11	7.7	11	0
Oct-05	3375	678	4*	4*	5	2.5	9.7	15	0
Nov-05	6415	1255	4*	4*	4	2	14	0.36	0
Dec-05	4500	859	4*	4*	7	4.5	9.4	0.13	0
Jan-06	4775	588	4*	4*	4	2.5	3.2	2	0
Feb-06	4775	816	4*	4*	6	3.5	10.6	6	0
Mar-06	1685	861	4*	4*	8	7	10	2.1	0
Apr-06									
May-06									
Jun-06	5053	2068	2*	2*	10	7.5	7	0.098	0
Jul-06	9781	2864	2*	2*	10	7	6.7	0.11	0.25
Aug-06	19407	5166	2*	2*	5	4	5	2.1	0
Sep-06	11103	2276	2*	2*	10	5.5	10	4.6	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Oct-06	2885	1214	2*	2*	2	1.5	9.9	0.86	0
Nov-06	9930	1816	2*	2*	1	1	4.9	1.7	0
Dec-06	2280	1126	2*	2*	1	1	6.3	0.44	0
Dec-06			2*		1*		4.2	.03*	0
Jan-07	1975	831	2*	2*	2	1.5	4	1	0
Jan-07			2*		1		6	0.27	0
Feb-07	1347	636	2*	2*	2	2	4.9	0.15	0
Feb-07			2*		1*		7.9	0.18	0
Feb-07			2*		4		3.6	0.14	0
Mar-07	1617	767	2*	2*	2	3	7.8	0.094	0
Mar-07			2*		4		7	0.06	0
Apr-07	2790	1183	2*	2*	1*	3	4.1	0.072	0
Apr-07			2*		5		7.8	0.1	0
May-07	3345	1493	2*	2*	3	4	8	0.14	0
May-07			2*		5		4.9	0.14	0
Jun-07	2070	1238	3.6	2.8*	7	4*	9.8	0.11	0
Jun-07			2*		1*		10.7	0.19	0
Jun-07							6.2		0
Jul-07	5900	1640	2*	2*	4	3.5	10	0.34	0
Jul-07			2*		3		9.5	0.25	0
Aug-07	5460	2168	2*	2*	2	3.5	8.4	0.71	0
Aug-07			2*		5		12	2.2	0
Aug-07							7		0
Sep-07	7385	1835	2*	2*	6	6.5	8.6	1.1	0
Sep-07			2*		7		5	0.62	0
Oct-07	7530	1019	2*	2*	6	3.5	7.4	0.62	0
Oct-07			2*		1		6.8	0.52	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

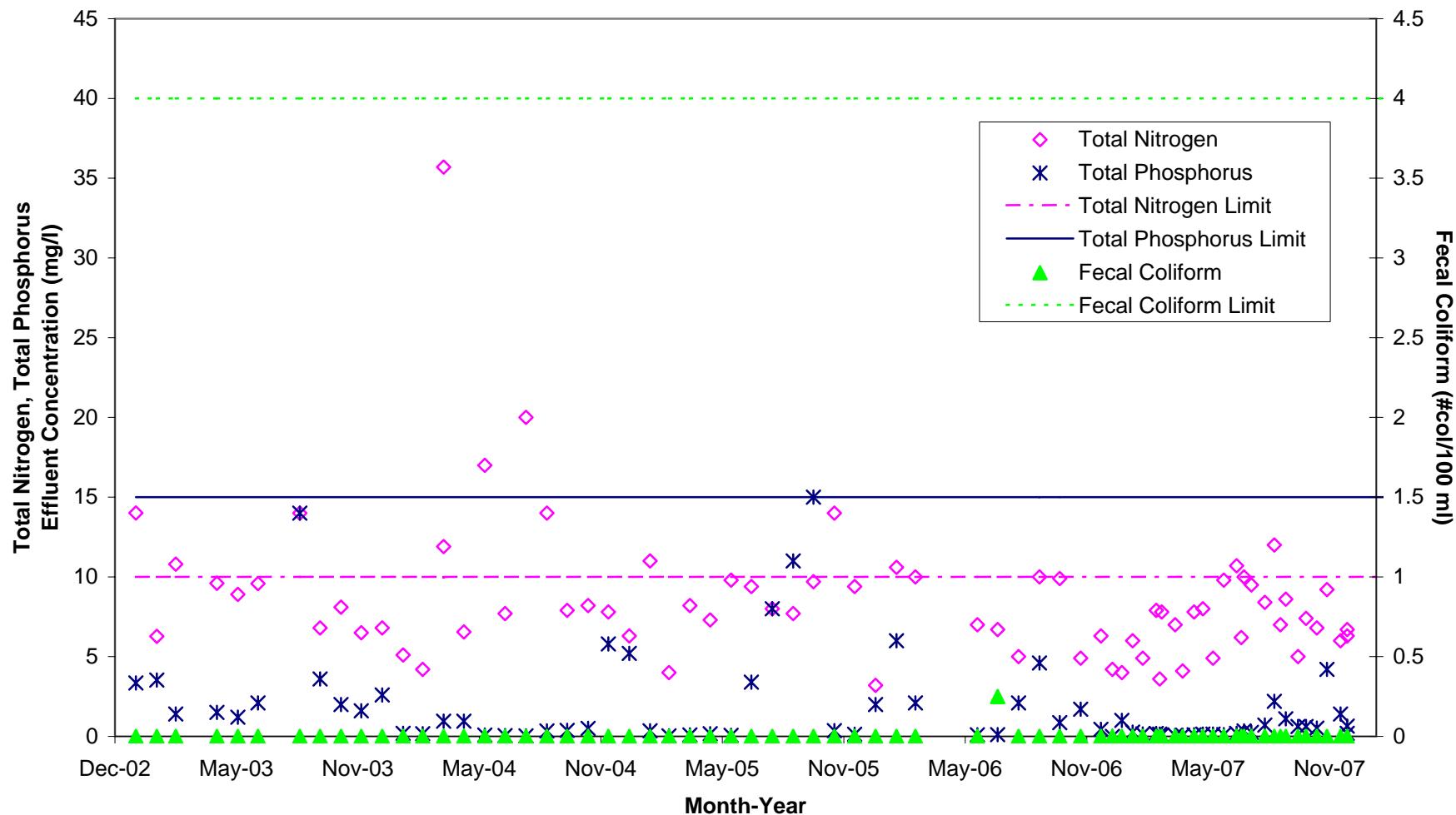
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Nov-07	9110	1826	2*	2*	7	4.5	9.2	4.2	0
Nov-07			2*		2		6	1.4	0
Dec-07	2180	887	2*	2*	8	5.5	6.7	0.64	0
Dec-07							6.3	0.19	

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2003 - DECEMBER 2007
PERMIT NO. UI0000296 - CLINTON CROSSING



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Clinton Crossing
Permit No.: UI0000296
Sampling Frequency: Quarterly
No. of Monitoring Wells: 4
Review Period: 1/03-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Mar-03	MW 1	1.2	0.15	10*
	MW 2	1*	0.04	10*
	MW 3	1*	0.12	10*
	MW4	6	14.1	10*
Jun-03	MW 1	1.9	ND	86
	MW 2	ND	ND	2
	MW 3	ND	ND	2
	MW 4	7.5	120	0
Nov-03	MW 1	0.39	0.57	36
	MW 2	ND	ND	0
	MW 3	ND	21	0
	MW 4	15.9	ND	0
Feb-04	MW 1	DRY	DRY	DRY
	MW 2	0.03	0	0
	MW 3	0.03	0	0
	MW 4	DRY	DRY	DRY
Jun-04	MW 1	ND	ND	0
	MW 2	ND	ND	0
	MW 3	ND	ND	0.02
	MW 4	ND	ND	0.06
Nov-04	MW 1	6.53	ND	0
	MW 2	4.19	ND	2
	MW 3	6.74	1.2	0
	MW 4	DRY	DRY	DRY
Mar-05	MW 4	ND	1.1	0
Apr-05	MW 1	20	0.81	0
	MW 2	ND	ND	0
	MW 3	ND	ND	2
	MW 4	0.48	ND	1
Oct-05	MW 1	1.6	0.68	168
	MW 2	ND	2.8	0
	MW 3	2.5	0.54	2
	MW 4	3.9	0.26	0
Feb-06	MW 1	2.21	0.48	2
	MW 2	0.57	0.12	0
	MW 3	0.98	0.17	0
	MW 4	4.09	0.18	0
Aug-06	MW 1	DRY	DRY	DRY
	MW 2	0.51	0.1	9
	MW 3	0.95	0.22	0
	MW 4	6.06	4.6	0
Nov-06	MW 1	1	0.16	0
	MW 2	0.66	0.11	0
	MW 3	0.84	0.27	6

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
	MW 4	1.5	7.6	0
Feb-07	MW 1	DRY	DRY	DRY
	MW 2	0.28	0.12	0
	MW 3	0.44	1.9	0
	MW 4	1.5	25	0
May-07	MW 1	DRY	DRY	DRY
	MW 2	0.31	0.04	0
	MW 3	0.18	0.84	0
	MW 4	1.05	8.7	0
Aug-07	MW 1	DRY	DRY	DRY
	MW 2	0.36	1.2	0
	MW 3	DRY	DRY	DRY
	MW 4	DRY	DRY	DRY
Nov-07	MW 1	0.62	0.1	0
	MW 2	0.39	0.04	0
	MW 3	0.72	0.42	0
	MW 4	1.5	7.7	0

ND = Non Detect

* = Less than Reported Level

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Goose Lane Medical, LLC, Guilford, CT

Permit Issuance Date: 07/09/04

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Phosphorus Fecal Coliform

Application: Commercial

Type: Treatment /Recycle

Class: New

Pretreatment discharge type: Fill
Natural Soils

Point of Environment Concern: Property line

Comments:

<u>Compliance summary (2/05 – 8/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	7 violations/38 tests 82
Total phosphorus (max limit = 15 mg/l)	36 violations/38 tests 5
Fecal coliform (avg limit = 4 col/100 ml)	0 violations/19 test months 100
BOD (avg. limit = 20 mg/l)	0 violations/19 test months 100
TSS (avg. limit = 20 mg/l)	0 violations/19 test months 100

Issues

- There were infrequent minor violations (3) of the total nitrogen limit since June 2005.
- Treatment for phosphorus removal was started approximately October 2006.

Recommendations

- A Notice of Violation (NOV) is to be issued.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

Update (November 2006 – January 2008)

- *11/30/06 – An NOV was issued for non-compliance with effluent limits on total phosphorus.*
- *The NOV response consisted of the installation of a chemical feed system to precipitate phosphorus in the treatment system.*
- *Treatment for phosphorus however appears at times to interfere with nitrogen removal. It is Goose Lane's policy that should operational problems develop that threaten compliance, the discharge will be ceased and the wastewater hauled off-site for disposal.*

Groundwater summary

- *Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.*

Additional Recommendations

- *Department staff are scheduled to meet with Zenon representatives to discuss phosphorus treatment issues.*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Goose Lane Medical LLC
Permit No.: UI0000400
Permit Issuance Date: 7/9/2004
Treatment Type: Zenon/Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/Mo.		2/Mo.		2/Mo.	2/Mo.	1/wk.
Jan-05	26406	2105	1	1	1*	1*	3.65	26.04	0
Jan-05							3.45	32.48	0
Feb-05	9660	2544	0	0	0	0	16.96	43.39	0
Feb-05								42.74	0
Mar-05	23418	2651	1.5	0.75	0	0	23.4	39.26	0
Mar-05					0			17.58	
Apr-05	11788	648	6.4	4.1	1	1	3.14	38.75	0
Apr-05								45.18	
May-05	2204	245	4	2	1	1	2.79	76.68	0
May-05					0			27.49	
Jun-05	6000	1483	1.2	0.6	0	0	38.15	29.9	0
Jun-05								56	
Jul-05	6000	1967	0	0	4	2	5.97	17.36	0
Jul-05								60.93	
Aug-05	5000	1800	1	1	0	0	8.33	31.67	0
Aug-05					0			36.56	
Sep-05	8000	1700	2.2	1.7	0	0	5.26	46.5	0.5
Sep-05								83.28	
Oct-05	8000	2000	4.9	3	2	1	6.28	34.53	0
Oct-05								64.69	
Nov-05	5000	1733	3.5	1.75	1	1	4.81	46.09	0
Nov-05								45	

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/Mo.		2/Mo.		2/Mo.	2/Mo.	1/wk.
Dec-05	3500	1800	1	1	1	1	10.2	51	0
Dec-05								43	
Jan-06	3000	1100	3	2	2	1.5	12	28	0
Jan-06								18	
Feb-06	2500	1800	23	13	2	2	2.9	45	0
Mar-06	3000	1900	2	1.5	1	1	11.5	46	0
Mar-06								56	
Apr-06	3000	1900	2	2	1	1	6.5	53	0
Apr-06								47	
May-06	4000	1900	2.6	2.5	2	1.5	5.5	66	0
May-06								60	
Jun-06	3000	2200	2.5	2.3	1	1	5.7	60	
Jun-06								50	0
Jul-06	3000	1800	2*	2*	2	1.5		46	0
Jul-06					1			47	
Aug-06	3000	1700	1.6	2.4	2	1	6.6	58	0
Aug-06								55	0
Sep-06	2500	1700	1*	1.8	1	1	2.5	43	0
Sep-06			1.8		1		10.3	27	0
Oct-06	2500	1700	23	13	3	2	27	27	0
Oct-06								38	0
Nov-06	4500	1900	1.5	1	1*	1*	62	43	0
Nov-06							62		0
Dec-06	3000	1000	1	2	2	2*	13	2.7	0
Dec-06			1*		3		5.3	2	0
Dec-06			4		1*		6.2	0.7	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/Mo.		2/Mo.		2/Mo.	2/Mo.	1/wk.
Jan-07	6000	1600	4.5	2.7*	1*	1*	4.2	0.37	0
Jan-07			1*		1*		11 **	3.44 **	0
Jan-07							6.1	3.31	0
Feb-07	4000	1000	19 **	10	1	1*	8.0**	2.5 **	0
Feb-07			1		1 *		15.9**	1.5 **	0
Mar-07	4000	1200	15**	8*	1	1*	22**	3.1**	0
Mar-07			1*		1*		5	0.9	0
Apr-07	1000	600	1	1*	1	1*	7	1.7	0
Apr-07			1*		1*		4.8	0.1	0
May-07	3000	1700	1*	1*	2	2	5.3	1.5	0
May-07			1*		2		7.9	.05*	0
Jun-07	4000	1600	1*	1*	1*	1*	16	0.93	0
Jun-07			1*		1*		9.6	2.6	0
Jul-07	3000	1700	1*	1*	1*	1*	4.1	0.3	0
Jul-07			1*		1*		7.7	0.2	0
Aug-07	3000	1700	1*	1*	2	1.5*	6.7	1.9	0
Aug-07			1		1		4.7	1	0
Sep-07	2500	1400	1*	1.5*	2	1.5*	4.9	0.1	0
Sep-07			2		1*		7.3	0.4	0
Oct-07	2500	1200	1	1	1*	1*	4.8	0.4	0
Oct-07			1**		1**		11.3**	1.1**	0
Nov-07	4000	1600	2**	1.5**	4**	2.5**	15**	2**	0
Nov-07			1*		1*		9.4	2	0
Dec-07	3000	1500	3	2	7	5	20	2	0
Dec-07							11	2	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Monthly (mg/l)	Avg. Daily (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4800		30	20	30	20	10	15	4
Sample Freq.	Daily		2/Mo.		2/Mo.		2/Mo.	2/Mo.	1/wk.
Jan-08	5000	1400	1*	8	2	1.5*	3.5	2	0
Jan-08			15		1*		17**	2	0

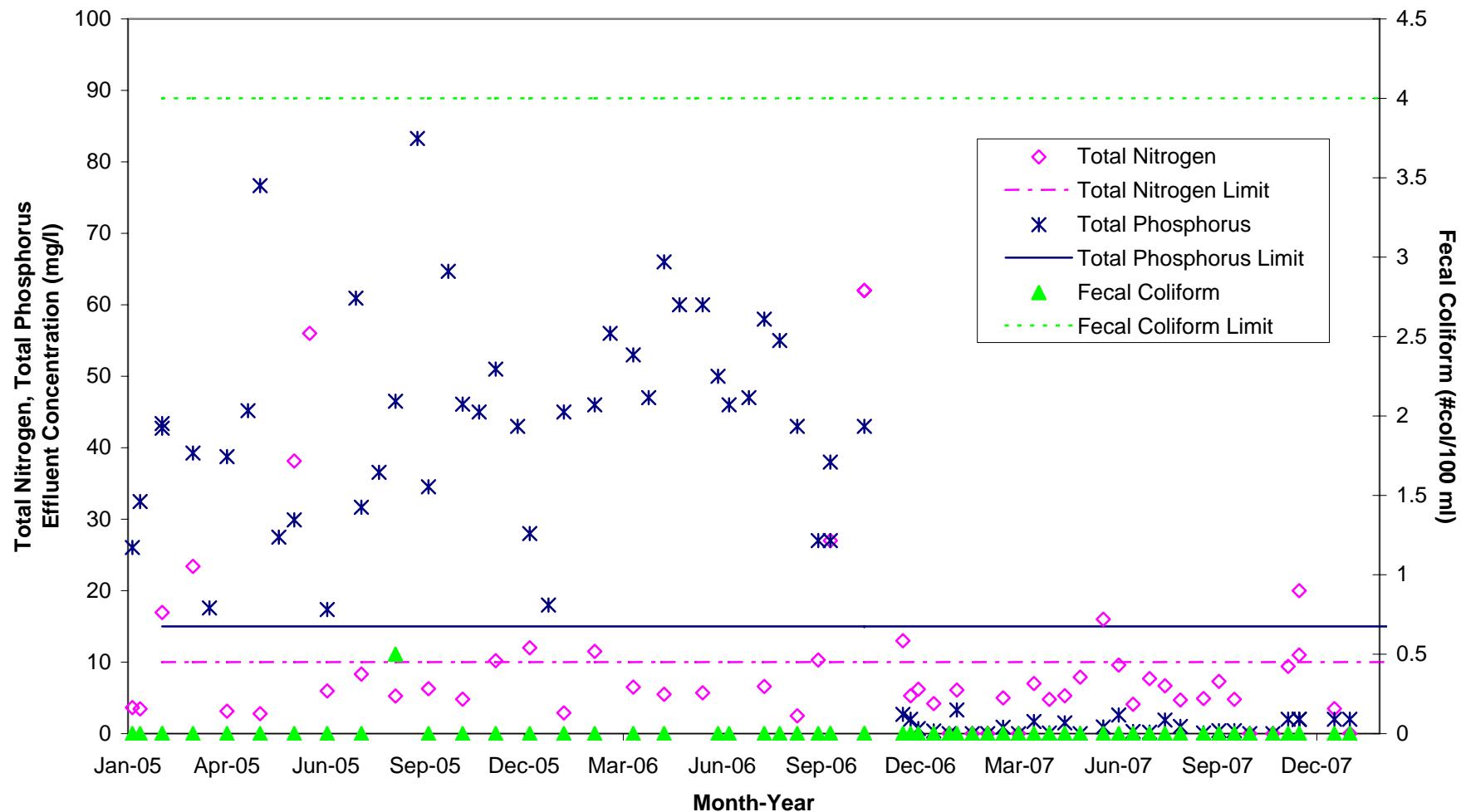
* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

** Means No Discharge. Wastewater was hauled off-site.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2005 - JANUARY 2008
PERMIT NO. UI0000400 - GOOSE LANE MEDICAL LLC



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Goose Lane Medical LLC
Permit No.: UI0000400
Sampling Frequency: Quarterly
No. of Monitoring Wells: 3
Review Period: 2/05 - 11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
May-05	MW 1	4.31	0.86	0
	MW 2	1.34	0.42	0
	MW 3	4.81	1.6	0
Aug-05	MW 1	3.04	6.02	0
	MW 2	3.12	0.64	0
	MW 3	NS	NS	NS
Nov-05	MW 1	8.75	ND	0
	MW 2	2.53	ND	0
	MW 3	5.79	0.53	0
Feb-06	MW 1	3.28	3.42	0
	MW 2	0.64	0.34	0
	MW 3	2.75	1.34	0
May-06	MW 1	2.77	0.98	0
	MW 2	0.8	0.38	0
	MW 3	4.72	3.34	0
Aug-06	MW 1	3	ND	0
	MW 2	2.12	ND	0
	MW 3	4.9	ND	0
May-07	MW 1	3.76	ND	0
	MW 2	1.18	ND	0
	MW 3	8.22	ND	0
Aug-07	MW 1	4.41	ND	0
	MW 2	3.73	ND	0
	MW 3	DRY	DRY	DRY
Nov-07	MW 1	3.52	0.05	0
	MW 2	NR	NR	NR
	MW 3	NR	NR	NR

ND = Non Detect

NS = No Sample

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Joel Barlow High School, Redding, CT

Permit Issuance Date: 11/06/02

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen

Application: Institutional

Type: Treatment

Class: New Upgrade

Pretreatment discharge type: Constructed Fill

Liner

Natural Soils

Point of Environment Concern: Toe of slope

Comments:

		<u>Compliance Rate (%)</u>
<u>Compliance summary (1/03 – 6/06)</u>		
Total nitrogen (max limit = 10 mg/l)	26 violations/88 tests	70
Total phosphorus (max limit = 15 mg/l)	1 violations/80 tests	99
Fecal coliform (avg limit = 4 col/100 ml)	0 violations/40 test months	100
BOD (avg limit = 20 mg/l)	0 violations/40 test months	100
TSS (avg limit = 20 mg/l)	0 violations/40 test months	100

Issues

- There have been no violations of total nitrogen limit since April 2005.
- Facility started operations during construction & upgrade of existing school.

Recommendations

- A letter is to be sent which cites the violations, requests that an explanation be provided, and reminds the permittee of violation reporting requirements.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment. Fecal coliform detection levels are an issue in many tests however and needs to be addressed with the permittee.

Update (November 2006 – December 2007)

- 12/14/06 – Recommended letter was issued.
- Through December 2007, compliance with permit limits has been met for total nitrogen, total phosphorus, BOD, TSS and fecal coliform.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment. Fecal coliform detection levels still need to be corrected by the permittee's testing laboratory, however the testing does not indicate a problem.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Joel Barlow High School

Permit No.: UI0000371

Permit Issuance Date: 7/9/2004

Treatment Type: Zenon, No Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	12535	8350	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jan-03	15355	8380	2*	2*	1*	1*	28		0
Jan-03							12		
Jan-03							32	1.7	
Feb-03	13347	8716	2*	2*	3	2*	60	9.7	0
Feb-03							16		
Mar-03	17448	8951	2*	2*	3	2*	13	3.3	0
Mar-03							15		
Apr-03	19586	9658	2	2*	2	2*	3	26	0
May-03	8041	6081	2*	2*	5*	5*	13	0.86	10*
Jun-03	20911	8339	16	8*	5*	3*	25	7	5*
Jul-03	6761	4597	2*	2*	5*	5*	7.7	3.8	10*
Aug-03	12414	5536	2*	2*	5*	5*	2.2	1.1	10*
Sep-03	13673	7662	2*	2*	5*	5*	16	0.24	10*
Oct-03	15782	7621	2*	2*	5*	5*	19	3.6	10*
Oct-03							14		
Oct-03							27		
Nov-03	11996	6826	2*	2*	5*	5*	10.2	0.04	10*
Nov-03							18		10*
Dec-03	8135	5549	2*	2*	5*	5*	27	1.5	10*
Dec-03							37		
Jan-04	7401	5645	2*	2*	5*	5*	21	2.4	10*
Jan-04							25		

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	12535	8350	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Feb-04	7268	5399	2*	2*	5*	5*	32.3	3.7	10*
Feb-04							18.3		
Mar-04	10839	6049	2*	2*	5*	5*	13	0.38	10*
Apr-04			2	2	6	5.5	8	0.78	10*
May-04	10600	6564	2	2	5	5	8.7	0.18	10*
Jun-04	18715	7052	2*	2*	5*	5*	4.1	0.34	10*
Jul-04	11918	3327	2*	2*	5*	5*	22	9.7	10*
Aug-04									
Sep-04	6370	1501	2*	2*	5*	5*	8.4	2.5	10*
Oct-04	6475	3382	2*	2*	5*	5*	6.6	1.2	10*
Nov-04	6513	2790	2*	2*	5*	5*	18	2.6	10*
Dec-04	5009	2641	2*	2*	5*	5*	21	3.5	10*
Dec-04							20		
Jan-05	4459	2402	2*	2*	5*	5*	3.1	6.7	10*
Feb-05	4847	2892	7	4*	7	6*	24	9.6	10*
Mar-05	5680	8668	2*	2*	5*	5*	4.7	0.85	10*
Apr-05	9737	3456	2*	2*	5*	5*	16	0.24	10*
May-05	6477	3784	2*	2*	5*	5*	8.7	0.33	10*
Jun-05	5259	2463	2*	2*	16	3*	6.8	9.7	10*
Jul-05	873	194	NR	NR	NR	NR	NR	NR	10*
Aug-05	6785	948	2*	2*	5*	5*	1.6	7.8	10
Sep-05	14407	4729	5*	2*	5*	5*	3.9	2.7	10
Oct-05	13476	3990	2*	2*	5*	5*	14	3.2	10*
Nov-05	15742	3326	2*	2*	5*	5*	12	7	10*
Dec-05	13258	3580	2*	2*	5*	5*	3	0.43	10*
Jan-06	5134	2480	2*	2*	5*	5*	7	6.2	10*
Feb-06	9767	2727	2*	2*	5*	5*	3	0.79	10*
Mar-06	8731	3612	2*	2*	5*	5*	8.3	0.16	10*
Apr-06	7097	2969	2*	1*	5*	4*	0.7	0.05	10*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	12535	8350	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
May-06	RE	3543	2*	2*	5*	5*	0.5	0.22	10*
Jun-06	6928	3930	2*	2*	5*	5*	0.4	0.04	10*
Jul-06	2919	1390	2*	2*	5*	5*	0.3	0.13	10*
Jul-06			2*		5*		0.6	0.13	10*
Aug-06	3786	814	2*	2*	5*	5*	0.6	0.86	2*
Aug-06			2*		5*		0.7	1.9	60
Aug-06			2*		5*		1	2.4	10*
Sep-06	7515	3722	2*	2*	5*	5*	1.2	0.32	10*
Oct-06	6550	3456	2*	2*	5*	5*	0.8	0.4	10*
Nov-06	5921	3447	2*	2*	5*	5*	1.3	0.26	10*
Dec-06	8888	2957	2*	2*	5*	5*	0.9	0.05	10*
Dec-06			2*		5*		1	0.24	10*
Jan-07	RE	RE	2*	2*	5*	5.5*	0.4	1.4	10*
Jan-07			2*		6*		0.4	NR	10*
Feb-07	4656	2111	2*	2*	5*	5*	0.8	0.17	10*
Feb-07			2*		5*		0.7	0.17	10*
Mar-07	11006	3692	2	1	5*	5*	3.5	0.49	10*
Apr-07	11006	3692	2	1*	5*	5*	3.5	0.24	10*
Apr-07			2*		5*		3	0.49	10*
May-07	9544		2*	2*	5*	5*	0.6	1	10*
Jun-07									
Jul-07	RE	RE	2	3*	5*	5*	1.4	1.1	10*
Jul-07			4*		5*		0.8	0.27	10*
Aug-07	13182	2308	4*	4*	5*	5*	0.8	0.04	10*
Aug-07			4*		5*		0.6	0.1	10*
Aug-07			4*		5*		0.7	0.31	10*
Sep-07	7231	2308	4*	4*	5*	5*	1.1	0.75	10*
Sep-07			4*		5*		0.6	0.26	10*
Sep-07			4*		5*		0.7	0.31	10*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

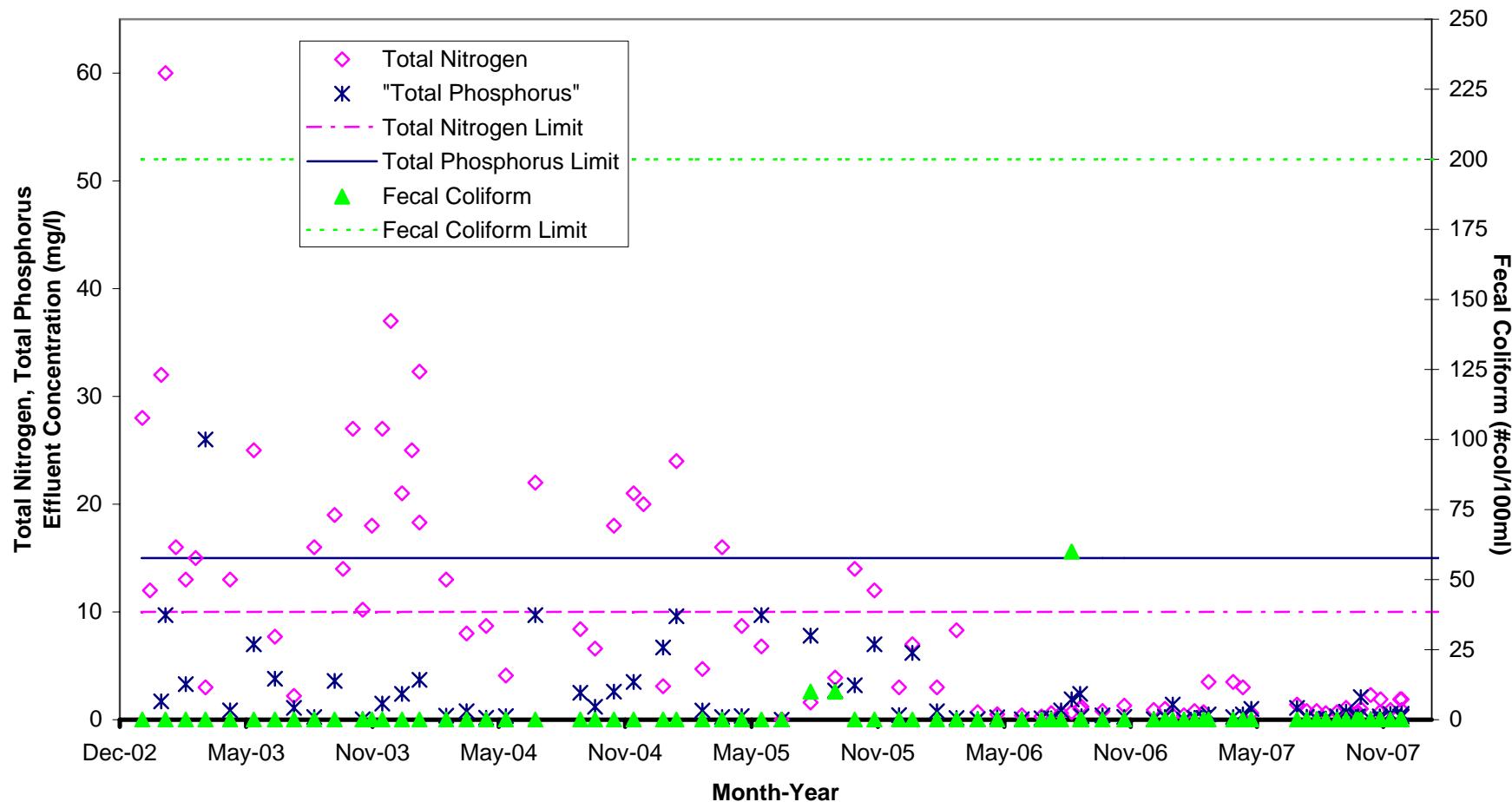
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	12535	8350	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Oct-07	5673	2308	4*	4*	5*	5*	1	2.1	10*
Oct-07			4*		5*		2.3	0.04	10*
Oct-07			4*		5*		0.7	0.31	10*
Nov-07	6677	2308	NR	4*	4*	4	1.9	0.08	10*
Nov-07			4*		12	7*	0.9	0.54	10*
Nov-07			4*		5*		1.9	0.3	10*
Dec-07	6677	2308	4*	4*	12	7*	0.9	0.54	10*
Dec-07			4*		5*		1.9	0.3	10*

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2002 - DECEMBER 2007
PERMIT NO. UI0000371 - JOEL BARLOW HIGH SCHOOL



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Joel Barlow High School
Permit No.: UI0000371
Sampling Frequency: Quarterly
No. of Monitoring Wells: 2
Review Period: 2/05 - 12/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Nov-02	MW1	2.2	NR	0
	MW2	0	NR	0
Nov-02	MW1	2.1	0.05*	0
	MW2	0	1.8	0
Dec-02	MW 1	5	NR	0
	MW 2	1.55*	NR	0
Dec-02	MW1	1.3	NR	0
	MW2	2.9	NR	0
Dec-02	MW1	4.2	NR	0
	MW2	2.4	NR	0
Dec-02	MW1	2.6	NR	0
	MW2	2.8	NR	0
Jan-03	MW 1	1.2	NR	0
	MW 2	0.7	NR	0
Feb-03	MW 1	1.7	0.5*	0
	MW2	0.3	0.5*	0
Mar-03	MW1	0.9	NR	2
	MW2	1.1	NR	0
Apr-03	MW 1	3.9	NR	0
	MW 2	2.5	NR	0
May-03	MW 1	9.4	0.51	0
	MW2	4.8	0.29	0
Jun-03	MW1	11.5	NR	10*
	MW2	6.2	NR	10*
Jul-03	MW1	10.5	NR	10*
	MW2	8.9	NR	10*
Aug-03	MW1	10.4	0.14	10*
	MW2	7.8	0.21	10*
Sep-03	MW1	11.2	NR	10*
	MW2	4.9	NR	10*
Oct-03	MW1	9.3	NR	10*
	MW2	3.1	NR	10*
Nov-03	MW1	7.9	0.3	3*
	MW2	1.6	0.1	4*
Dec-03	MW1	5.9	NR	10*
	MW2	2.2	NR	10*
Jan-04	MW1	4.3	NR	10*
	MW2	1.7	NR	10*
Feb-04	MW1	5.9	0.1	10*
	MW2	1	0.01	10*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Mar-04	MW1	2.8	NR	10*
	MW2	0.9	NR	10*
Apr-04	MW1	2.4	NR	10*
	MW2	1	NR	10*
May-04	MW1	4.1	0.1	10*
	MW2	0.9	0	10*
Jun-04	MW1	2	NR	10*
	MW2	2.5	NR	10*
Jul-04	MW1	2.8	NR	10*
	MW2	1.4	NR	10*
Aug-04	MW1	3.53	NR	10*
	MW2	1.8775	NR	<80
Sep-04	MW1	2	NR	>600
	MW2	1.5	NR	10*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Oct-04	MW1	3	NR	>10000
	MW2	1.1	NR	180
Nov-04	MW1	3.6	0.1	10*
	MW2	1.3	0.1	10*
Dec-04	MW1	3.1	NR	10*
	MW2	1	NR	10*
Jan-05	MW1	2.6	.01*	10*
	MW2	0.6	.01*	10*
Feb-05	MW1	2.5	0.14	10*
	MW2	0.8	0.08	10*
Mar-05	MW1	1.7	NR	10*
	MW2	0.9	NR	10*
Apr-05	MW1	2.3	NR	10*
	MW2	0.7	NR	10*
May-05	MW1	3	0.05	10*
	MW2	0.6	0.04	10
Jun-05	MW1	2.1	NR	10*
	MW2	1	NR	10
Jul-05	MW1	1.7	NR	10*
	MW2	1.8	NR	10*
Aug-05	MW1	5.8	NR	10
	MW2	1.7	NR	10*
Sep-05	MW1	1.8	0.24	10*
	MW2	1	0.13	10*
Oct-05	MW1	1.3	NR	10*
	MW2	0.9	NR	10
Nov-05	MW1	1.3	0.46	10
	MW2	0.7	0.03	10*
Dec-05	MW1	1.8	NR	10*
	MW2	0.47	NR	10*
Jan-06	MW1	1.3	NR	10*
	MW2	0.3	NR	10*
Feb-06	MW1	1	0.3	10*
	MW2	0.4	0.1	10*
Mar-06	MW1	1.7	NR	10*
	MW2	0.3	NR	10*
Apr-06	MW1	0.7	NR	10*
	MW2	8.2	NR	10*
May-06	MW1	0.4	0.2	10*
	MW2	0.3	0.1	10*
Jun-06	MW1	0.5	NR	10*
	MW2	0.3	NR	10*
Jul-06	MW1	0.8	0.01*	10*
	MW2	0.3	0.02	10*
Aug-06	MW1	0.5	NR	10*
	MW2	0.7	NR	10*
Sep-06	MW1	0.4	NR	10*
	MW2	0.5	NR	10*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Nov-06	MW1	0.8	NR	10*
	MW2	0.8	NR	10*
Dec-06	MW1	0.5	0.3	10*
	MW2	0.7	0.2	10*
Jan-07	MW1	0.7	NR	10*
	MW2	0.2	NR	10*
Feb-07	MW1	0.6	NR	10*
	MW2	0.4	NR	10*
Apr-07	MW1	3.2	0.3	10*
	MW2	3.1	NR	10*
Jun-07	MW1	0.6	0.2	10*
	MW2	0.6	0.2	10*
Jul-07	MW1	0.8	NR	10*
	MW2	0.9	NR	10*
Aug-07	MW1	0.7	NR	10*
	MW2	0.7	NR	10*
Sep-07	MW1	1.8	0.4	10*
	MW2	1.7	0.4	10*
Nov-07	MW1	0.7	NR	10*
	MW2	0.2	NR	10*
Dec-07	MW1	1.2	0.3	10*
	MW2	0.9	0.1	10*

NR = Non Report

* = Less than Reported Level

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Kensington Green, Southbury, CT

Permit Issuance Date: 06/27/01

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Fecal Coliform

Application: Residential

Type: Treatment/Recycle

Class: New

Pretreatment discharge type: Fill
Natural Soils

Point of Environment Concern: Wetland boundary

Comments:

<u>Compliance summary (1/03 – 6/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	15 violations/40 tests 63
Total phosphorus (max limit = 15 mg/l)	4 violations/40 tests 90
Fecal coliform (avg. limit = 4 col/100 ml)	3 violations/3 test months 0
BOD (avg. limit = 20 mg/l)	0 violations/20 test months 100
TSS (avg. limit = 20 mg/l)	1 violation/20 test months 95

Issues

- All other fecal coliform test results were inconclusive due to reporting errors.
- Missing DMRs are being sought.

Recommendations

- A Notice of Violation (NOV) is to be issued.

Groundwater summary

- Missing DMRs are being sought.

Update (November 2006 – December 2007)

- *11/30/06 – A NOV was issued for non-compliance with effluent limits on total nitrogen.*
- *The NOV response consisted of replacing the Zenon membranes and initiating carbon feed to optimize denitrification.*

Groundwater summary

- *Missing DMRs have been obtained. Total nitrogen, total phosphorus and fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Kensington Green

Permit No.: UI0000343

Permit Issuance Date: 6/27/2001

Treatment Type: Zenon/Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	14400	11100	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Feb-02	1570	1407	1*	1*	1*	1*	7.39	36.2	0
Mar-02	2900	1594	4*	2.5*	3	2*	6.68	31	0
Mar-02								27	
Apr-02	2900	1633	1*	1*	8	8	8.5	16	0
May-02	3500	1572	2*	2*	5*	5*	2	11	RE
Jun-02	4200	1852	2*	2*	5*	5*	2.6	17	RE
Jul-02	3200	2048	2*	2*	5*	5*	1.3	13	RE
Aug-02	3900	2206	2*	2*	5*	5*	2.5	28	RE
Sep-02	4000	2480	2*	2*	10	8*	3.2	13	RE
Oct-02	3800	2426	2*	2.*	5.5	5.25*	3.7	6.2	RE
Nov-02	4400	2707	2*	2*	5*	5*	1.28	18	RE
Dec-02	7850	3998	2*	2*	5*	5*	2.4	8.8	RE
Jan-03	4700	2713	2*	2*	13	9*	1.51	6.2	RE
Feb-03	4600	2763	6.8	4.4*	5*	5*	1.59	16	RE
Feb-03								13	
Mar-03	4800	2945	2*	3.5*	5*	5*	1.93	5.9	RE
Apr-03	4700	2900	2*	2*	5*	5*	2.15	9.8	RE
May-03	5800	3158	2*	2*	7	6*	2.9	14	RE
Jun-03	5300	3226	2*	2*	5*	5*	1.93	9.7	RE
Jul-03	9000	3048	2*	2*	8	5*	2.25	15	RE
Aug-03	6930	3708	5*	3.5*	8	6.5*	8.06	5.2	RE

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	14400	11100	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Sep-03	12500	3674	2*	2*	7	6*	2.5	11	RE
Oct-03	5400	3013	2*	2*	29	17*	8.4	13	RE
Nov-03	5600	2767	5*	5*	2*	2*	8.25	11	RE
Dec-03	14800	4385	2*	2*	5*	5*	7.55	16	RE
Jan-04	4600	2992	2*	2*	5*	5*	2.21	8.9	10*
Feb-04	4600	2983	2*	2*	13	9	2.76	7.1	10*
Mar-04	4600	2965	2*	2*	6.5	5.75	2.82	22	10*
Apr-04	4900	2863	2*	2*	8	6.5	2.15	12	10*
May-04	4000	2823	2*	2*	5*	5*	2.56	9.1	10*
Jun-04	4700	2723	2*	2*	5*	5*	1.78	10	10*
Jul-04	3900	2768	2*	2*	5*	5*	3.43	10	30
Aug-04	3250	2702	2*	2*	6	5.5	5.31	12	10*
Sep-04	3400	2573	2*	2*	10*	6.67	2.97	19	10*
Oct-04	4400	2797	2*	2*	10*	7.5*	1.7	9.7	10*
Nov-04	3200	2715	2*	2*	5*	5*	1.42	13	592.5
Dec-04	4500	2800	2*	2*	6	5.5	1.63	19	57.5
Jan-05	3800	2694	2*	2*	6	5.5	1.75	14	265
Feb-05	4300	2682	2*	2*	5*	5*	1.8	10	10*
Mar-05	3900	2729	2*	2*	10*	7.5*	2.03	13	87.5
Apr-05	4350	2980	2*	2*	5	5*	2.18	7.4	292.5
May-05	7600	3077	2*	2*	10*	7.5*	2.17	8.8	260
Jun-05	3500	2820	2*	2*	7	6*	6.5	12	260
Jul-05	4250	2913	2*	2*	10	10*	31.1	16	260
Jul-05							21		
Aug-05	4000	2642	2*	2*	16	14.5	18.4	19.3	12.5
Sep-05	3900	2500	2*	2*	19	17	2.62	13	142.5
Oct-05	5050	2855	2*	2*	9.5	8.25	11.5	1.8	32.5
Nov-05	4200	2873	2*	2*	11	8.25	27	14	RE

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	14400	11100	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Nov-05							26		
Dec-05	11150	2965	2*	2*	13	10.75	30	18	15*
Dec-05							26		
Jan-06	4400	2897	2*	2*	5*	5*	22	15	RE
Jan-06							15.4		
Feb-06	4100	2821	2*	2*	59	32.5	18	16	RE
Feb-06							19.8		
Mar-06	7050	3045	2*	2*	10	8.25	26.2	11	RE
Mar-06							21.3		
Apr-06	4800	2710	2*	2*	12	9	14.3	6.5	25*
May-06	3800	2811	2*	2*	12	8.75	12	10	25*
May-06							16.2		
Jun-06	8950	3325	2*	2*	14	10.75	15.6	6	RE
Jun-06							14.4		
Jul-06									
Aug-06									
Sep-06	8300	3703	2*	2*	13	9	14.3	3.2	10
Oct-06	6850	3371	2*	2*	5*	5*	14	2.5	795
Oct-06									
Nov-06	3200	2747	2*	2*	5*	5*	17	3.2	10*
Nov-06							16		
Dec-06	7700	3225	2*	2*	5	5*	9.34	2.7	10*
Dec-06			2*		5*		7.92	2.6	40
Jan-07	4500	3081	2*	2*	5*	5*	2.93	8.6	4*
Nov-07			2*		5*		20.3	13	
Feb-07	4950	3120	2*	2*	15	10*	18.3	10	2*
Feb-07			2*		5*		2.02	3.3	2*
Mar-07	4700	3179	2*	2*	5*	5*	12	12	2*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

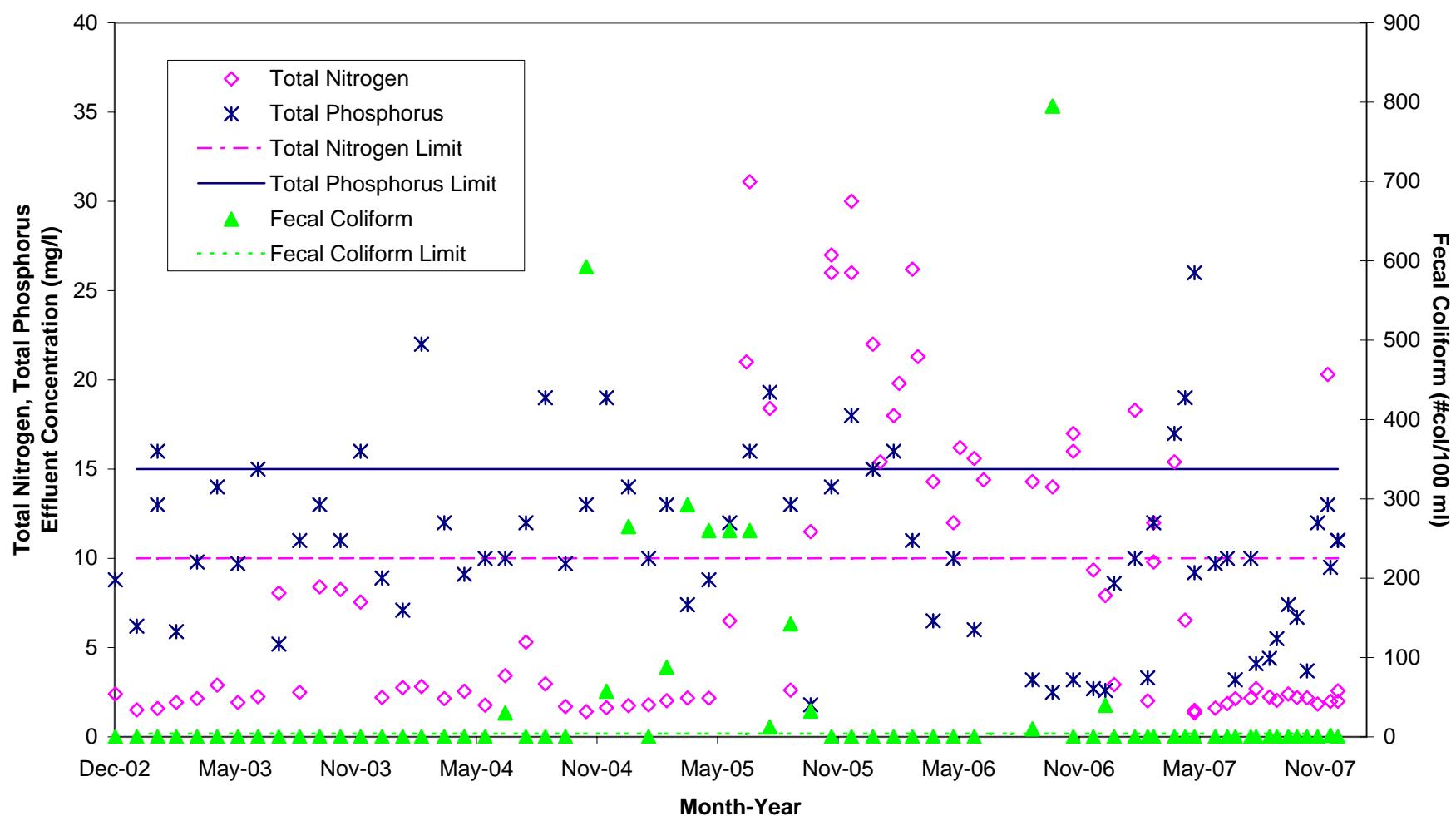
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	14400	11100	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Mar-07							9.8		
Apr-07	5400	3323	2*	2*	5*	5*	15.4	17	2*
Apr-07			2*		5*		6.54	19	2*
May-07	8700	3561	2*	2*	5*	5*	1.48	26	2*
May-07							1.35	9.2	
Jun-07	4600	3240	1*	2.5*	5*	5*	1.61	9.7	2*
Jun-07			4*		5*		1.87	10	2*
Jul-07	4600	3129	4*	3*	5*	5*	2.14	3.2	2*
Jul-07			2*		5*		2.17	10	2*
Aug-07	3800	3081	4*	4*	5*	5*	2.7	4.1	2*
Aug-07			4*		5*		2.24	4.4	2*
Sep-07	4500	3390	4*	4*	5*	5*	2.05	5.5	2*
Sep-07			4*		5*		2.4	7.4	2*
Oct-07	4700	3361	4*	4*	5*	5*	2.21	6.7	2*
Oct-07			4*		5*		2.19	3.7	2*
Nov-07	4600	3398	4*	4*	5*	5*	1.84	12	2*
Nov-07			4*		5*		1.99	9.5	2
Dec-07	4800	3518	4*	4*	5*	5*	2.58	11	2*
Dec-07							2	11	

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
DECEMBER 2002 - DECEMBER 2007
PERMIT NO. UI0000343 - KENSINGTON GREEN



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Kensington Green
Permit No.: UI0000343
Sampling Frequency: Quarterly
No. of Monitoring Wells: 1
Review Period: 1/03-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Feb-02	MW 1	0.2	0.14	10*
Aug-02	MW 1	0.39	0.1	10*
Nov-02	MW 1	0.3	0.53	10*
Feb-03	MW 1	0.39	0.14	10*
May-03	MW 1	0.52	0.06	10
Aug-03	MW 1	6.35	30	NR
Nov-03	MW 1	0.19	0.02	10*
Feb-04	MW 1	0.08	0.03	10*
May-04	MW 1	1.38	0.2	10*
Aug-04	MW 1	0.24	0.04	10*
Nov-04	MW 1	0.27	0.03	10*
Feb-05	MW 1	0.43	0.05	10*
May-05	MW 1	4.4	10	10*
Aug-05	MW 1	0.4	0.08	10*
Nov-05	MW 1	0.21	0.23	10*
Feb-06	MW 1	4.95	.01*	10*
May-06	MW 1	2	0.21	10*
Nov-06	MW 1	0.2	1.6	10*
Feb-07	MW 1	0.81	0.07	2*
Aug-07	MW 1	0.17	0.14	2*
Nov-07	MW 1	0.501	0.37	2*

* = below reported value

NR = Non Report

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Mallory Brook Plaza, Barkhamsted, CT

Permit Issuance Date: 7/1/97

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Fecal Coliform

Application: Commercial

Type: Treatment/Recycle

Class: Upgrade Modification Repair

Pretreatment discharge type: Fill
Natural Soils

Point of Environment Concern: Surface water body

Comments:

<u>Compliance summary (1/03 – 8/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	73 violations/88 tests 17
Total phosphorus (max limit = 15 mg/l)	66 violations/88 tests 25
Fecal coliform (avg limit = 4 col/100 ml)	5 violations/44 test months 89
BOD (avg. limit = 20 mg/l)	9 violations/44 test months 80
TSS (avg. limit = 20 mg/l)	1 violation/ 44 test months 98

Issues

- Phosphorus removal treatment is not currently provided.

Recommendations

- A Notice of Violation (NOV) is to be issued.

Groundwater summary

- Groundwater monitoring is not required.

Update (November 2006 – November 2007)

- 11/30/06 – An NOV was issued for non-compliance with effluent limits on total nitrogen and total phosphorus.
- The NOV response consisted of improved routine operational and maintenance oversight as well as addressing several specific maintenance & equipment replacement issues. Department staff have initiated steps to issue a Consent Order. The Consent Order contains a specific compliance schedule designed to elicit the formal study, identification and correction of any problems contributing to non-compliance at the facility.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Mallory Brook Plaza

Permit No.: UI0000129

Permit Issuance Date: 7/1/1997

Treatment Type: Zenon/Recycle

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	2000		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jan-03			4.5	3.75*	5*	5*	100	15	0
Jan-03							100		
Feb-03			3*	3*	5*	5*	18	9	0
Feb-03							17		
Mar-03			7	5.25	5*	5*	27	24	0
Mar-03							26	22	
Apr-03		33	27.5		6	6	44	35	5
Apr-03							43		
May-03			3*	3*	6	6	51	34	3.5
May-03							33		
Jun-06			3*	3*	5*	5*	52	45	0
Jun-03							51		
Jul-03			3*	3*	5*	5*	120	65	0
Aug-03		700	455		30	25	180	17.5	32.75
Aug-03							187		
Sep-03			3*	3*	7	6	72.4	26	0
Sep-03							51		
Oct-03			3*	3*	5*	5*	59.4	18	0
Nov-03			3*	3*	5*	5*	1.72	24.2	0
Dec-03			3*	3*	5*	5*	77.4	39.4	0
Dec-03								35.8	

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	2000		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jan-04			3*	3*	5*	5*	48.8	24.2	0
Jan-04								28.3	
Feb-04			3*	3*	5*	5*	0.88	26.4	0
Feb-04								26.1	
Mar-04		26	22		5*	5*	14.4	19.2	0
Mar-04							28.2	23.2	
Apr-04		12.8	8.3		5*	5*	61.4	37.3	0.8
Apr-04							65.3	39.7	
May-04		11.1	7.1		5*	5*	75.6	39.6	0
May-04							71.2	46.9	
Jun-04		77	60		9	7	91.8	45.2	0
Jun-04		42					102	47.6	
Jul-04		105	69		8	7.5	85.1	24.9	0
Jul-04		32.5					122	32.6	
Aug-04		3*	3*		5*	5*	164	50.8	0
Aug-04							156	53.2	
Sep-04		7	5		10	8	145	46.5	0
Sep-04							126	51.4	
Oct-04		3	3		6	6	2.81	26.8	0
Oct-04								26.6	
Nov-04		49	26		46	26	25.3	27.8	1
Nov-04								19.3	31.8
Dec-04		3*	3*		5*	5*	38.6	38.6	0
Dec-04								40	
Jan-05	NR	NR	3	3	5*	5*	24.2	53.6	0
Jan-05								54.2	

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	2000		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Feb-05	NR	NR	3*	3*	6	6	2.74	35.5	0
Feb-05								40.5	
Mar-05	NR	NR	7	6	5*	5*	38.5	49.8	0
Mar-05							27.1	29.8	
Apr-05	NR	NR	3*	3*	5*	5*	48.3	46.4	0
Apr-05							48	51.8	
May-05	NR	NR	3*	3*	5*	5*	71.4	54.8	0
May-05							88.9	49.6	
Jun-05	NR	NR	3*	3*	5*	5*	187	47.5	0
Jun-05							182	57	
Jul-05	NR	NR	3*	3*	5*	5*	176	66.5	0
Jul-05							165	62.1	
Aug-05	NR	NR	7	5	6	6	126	39	0
Aug-05							120		
Sep-05	NR	NR	7	5	5*	5*	95.8	33.7	17
Sep-05							77.1	29.8	
Oct-05	NR	NR	25	14	5	5	70.2	26.6	5
Oct-05							78.1	30.8	
Nov-05	NR	NR	11	7	5*	5*	101	34.4	0
Nov-05							107	37	
Dec-05	NR	NR	3*	3*	20	16	75.1	81	0
Dec-05							139	43.2	
Jan-06	NR	NR	15	11	6	6	108	48	0
Jan-06							108	44.5	
Feb-06	NR	NR	16	10	7	6	78.6	38	2
Feb-06							75.9	30.7	
Mar-06	NR	NR	3*	3*	5*	5*	92.5	32.5	1*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	2000		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Mar-06								31.8	
Apr-06	NR	NR	12*	7.5*	16	9	140	13.9	1
Apr-06							140		
May-06	NR	NR	10	8.75	22	12.5	160	15.4	1.5
May-06							130		
Jun-06	NR	NR	65	34	30	18.8	100	12.8	9
Jun-06							88		
Jul-06	NR	NR	60	48	23	17	87	12	1*
Jul-06			35				85		
Aug-06	NR	NR	60	32	6	4	78	12.9	20
Aug-06							79		
Sep-06	NR	NR	120	120	39	31	85	7.1	3
Sep-06			120				86		
Oct-06	NR	NR	24	18	8	5.5	46	9.39	1
Oct-06							71		
Nov-06	NR	NR	12	7.5	2	1.5	120	11.2	0
Nov-06							100	7.96	0
Dec-06	NR	NR	3*	3*	1.7	1.7*	7.4	0.32	0
Dec-06							10	.5*	0
Jan-07	NR	NR	3*	3*	1.7	1.35	11	10.3	0
Jan-07							8.5	6.5	0
Feb-07	NR	NR	3*	3*	1.7	1.35	37	21.9	1*
Feb-07							24	21.3	1*
Mar-07	NR	NR	3*	2*	1*	1*	32	21.4	0
Mar-07							17	19.9	0
Apr-07	NR	NR	3*	3*	1*	1*	30	18.5	0
Apr-07							29	16.5	0
May-07	NR	NR	3*	3*	2*	1.5	30	26.4	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

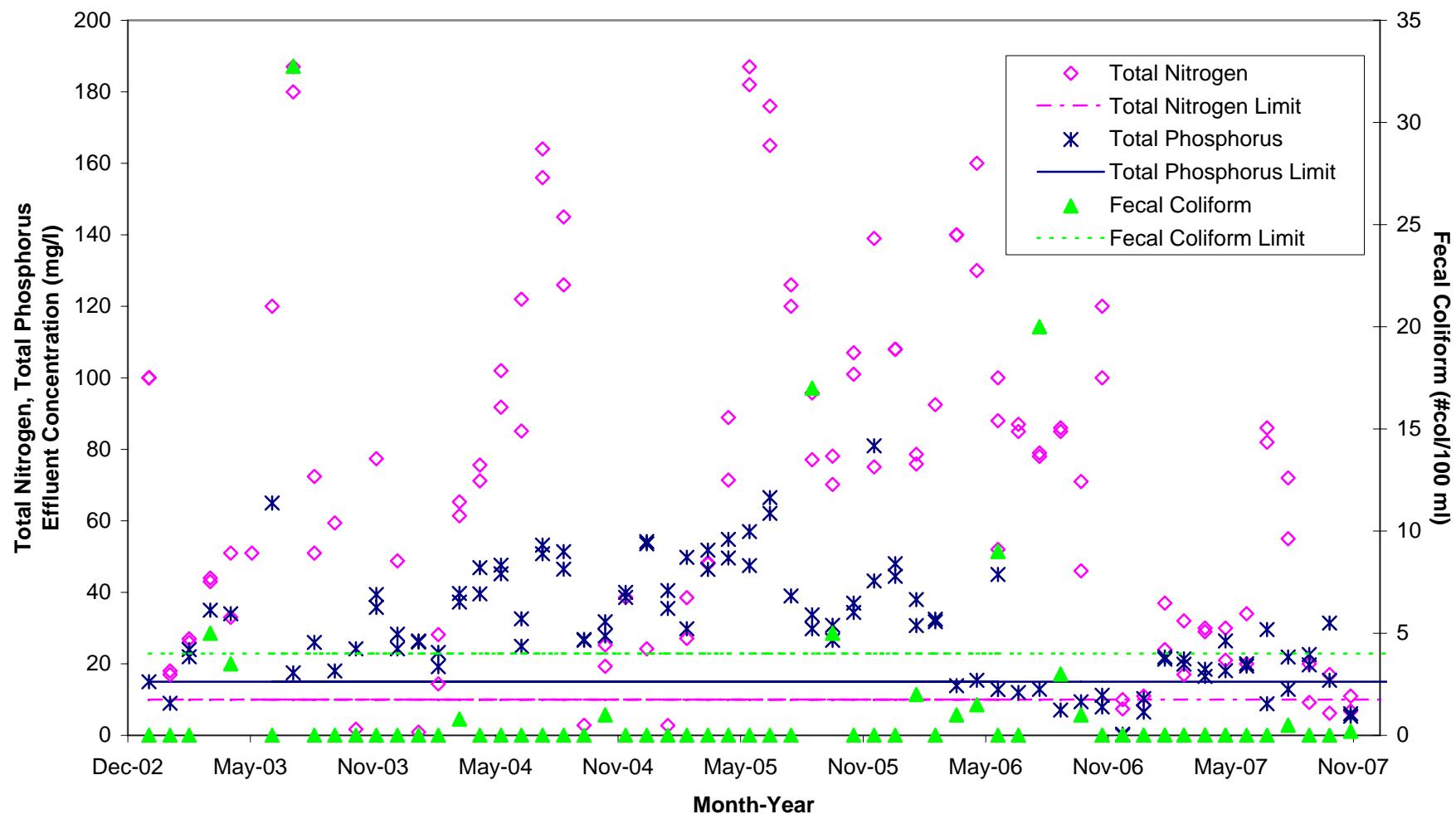
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	2000		30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
May-07							21	18.1	0
Jun-07	NR	NR	3*	3*	2.5*	2.1*	34	20	1*
Jun-07							20	19.4	
Jul-07	NR	NR	10	10	8.5	6	86	29.6	2*
Jul-07							82	8.84	
Aug-07	NR	NR	8.7	8.4	14	8.5	72	21.9	0.5
Aug-07							55	12.9	
Sep-07	NR	NR	3*	3*	2*	2*	20	22.6	0
Sep-07							9.2	19.7	
Oct-07	NR	NR	74	43*	10.8	7.4	17	31.4	0
Oct-07							6.2	15.4	
Nov-07	NR	NR	3*	3*	1.7*	1.7*	11	6.05	0.2
Nov-07							6.8	5.34	

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2003 - NOVEMBER 2007
PERMIT NO. UI0000129 - MALLORY BROOK PLAZA



SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Salisbury School, Salisbury, CT

Permit Issuance Date: 11/26/03

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Fecal Coliform

Application: Institutional

Type: Treatment

Class: Repair

Pretreatment discharge type: Constructed Fill Liner

Point of Environment Concern: Wetland boundary

Comments:

<u>Compliance summary (12/03 – 8/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	5 violations/66 tests 92
Total phosphorus (no permit limit)	----
Escherichia coli (avg limit = 10 col/100 ml)	1 violation/33 test months 97
BOD (avg. limit = 20 mg/l)	0 violations/33 test months 100
TSS (avg. limit = 20 mg/l)	1 violation/33 test months 97

Issues

- There were no violations of the total nitrogen limit since January 2005.

Recommendations

- A letter is to be sent which cites the violations, requests that an explanation be provided, and reminds the permittee of violation reporting requirements.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

Update (November 2006 – December 2007)

- 12/14/06 – Recommended letter was issued, and an appropriate response was received.
- Through December 2007, compliance has been met with permit limits for BOD, TSS and with one exception, for Escherichia coli. There were occasional exceedences of the permit limit for total nitrogen.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Salisbury School

Permit No.: UI0000396

Permit Issuance Date: 11/26/2003

Treatment Type: Zenon, No Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Escherichia Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	36800	24500	30	20	30	20	10		10
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Dec-03	35530	24500	3*	3*	1*	1*	9.5	15.1	1*
Jan-04	25930	16348	3*	3*	1*	1*	9.3	34.7	1
Feb-04	23250	16174	3*	3*	1*	1*	12	26.9	1*
Feb-04							11		
Mar-04	22130	9421	3*	3*	1.8	1.6	15	31.7	1*
Mar-04							11		
Apr-04	34160	24009	3*	3*	1*	1*	7.8	37.8	1*
May-04	26200	20204	3*	3*	1*	1*	9.1	31.5	1*
Jun-04	17230	7915	3*	3*	5.8	3.7	6.4	16.4	
Jul-04	17900	11290	3*	3*	1.6	1.4	7	6.2	1*
Aug-04	16350	6704	3*	3*	5.8	3.4	8.4	10.9	1*
Sep-04	35060	16877	3*	3*	1*	1*	5.9	21	1*
Oct-04	34270	22030	3*	3*	1*	1*	8.5	12.9	1*
Nov-04	31710	16804	3*	3*	1*	1*	8.2	21.9	1*
Dec-04	30150	15945	3*	3*	1.4	1.2	8.5	38.4	1*
Jan-05	31940	24052	3*	3*	1*	1*	10.5	14.1	1*
Feb-05	31640	22945	3*	3*	1*	1*	6.4	16.6	1*
Mar-05	31350	15813	3*	3*	1*	1*	2.9	21.5	1*
Apr-05	33820	19541	3*	3*	3.2	2.1	4.7	12.6	1*
May-05	20075	16239	3*	3*	1*	1*	6.6	23.7	1*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Escherichia Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
	Permit Limit	36800	24500	30	20	30	20	10	
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jun-05	17230	7915	3*	4.4*	2.2	1.8	5.5	55.6	1*
Jul-05	11450	8350	3*	3*	2.6	2.15*	3.7	48.7	6
Aug-05	11130	5256	3*	3*	5.8	3.4	3.5	27.4	1*
Sep-05	25751	13853	3*	3*	1*	1*	5.2	8.9	1*
Oct-05	35777	25085	3*	3*	1*	1*	5.5	23.7	1*
Nov-05	28000	15931	3*	3*	1*	1*	5.4	20	1*
Dec-05	33071	17433	3*	3*	1.4	1.2	8.6	15.8	1*
Jan-06	32930	22319	3*	3*	4.3	2.2	7.6	8.02	1*
Feb-06	29030	17864	3*	3*	1*	1*	7.2	13.2	9.25
Mar-06	18610	7556	3*	3*	1*	1*	4.4	15.7	1*
Apr-06	22490	15539	3*	3*	5.7	5.3	6	12.6	1*
May-06	33170	18819	3*	3*	1*	1*	6.4	17.4	1*
Jun-06	23193	11129	3*	3*	3.8	3.3	6.1	22.9	1*
Jul-06	17345	13098	3*	3*	49	35.9	7.3	24.3	1*
Aug-06	16940	9196	3*	3*	5.8	3.4	7.3	8.1	1*
Sep-06									1*
Oct-06	28520	19869	3*	3*	1*	1*	5.2	20.5	1*
Nov-06	35530	18718	3*	3*	1*	1*	5	16	1*
Nov-06			3*		1*		6.2	20.7	1*
Nov-06			3*		1*		6.7	10.7	1*
Dec-06	22960	11075	3*	3*	1.4	1.3*	6.3	25.4	1*
Dec-06			3*		1*		34	63.5	1*
Jan-07	23090	16822	3*	3*	1*	1*	11	10.2	1*
Jan-07			3*		1*		5.7	17.4	1*
Feb-07	18660	14531	3*	3*	1.3*	1.15*	7.9	16	1*
Feb-07			3*		1.0*		6.1	9.74	1*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

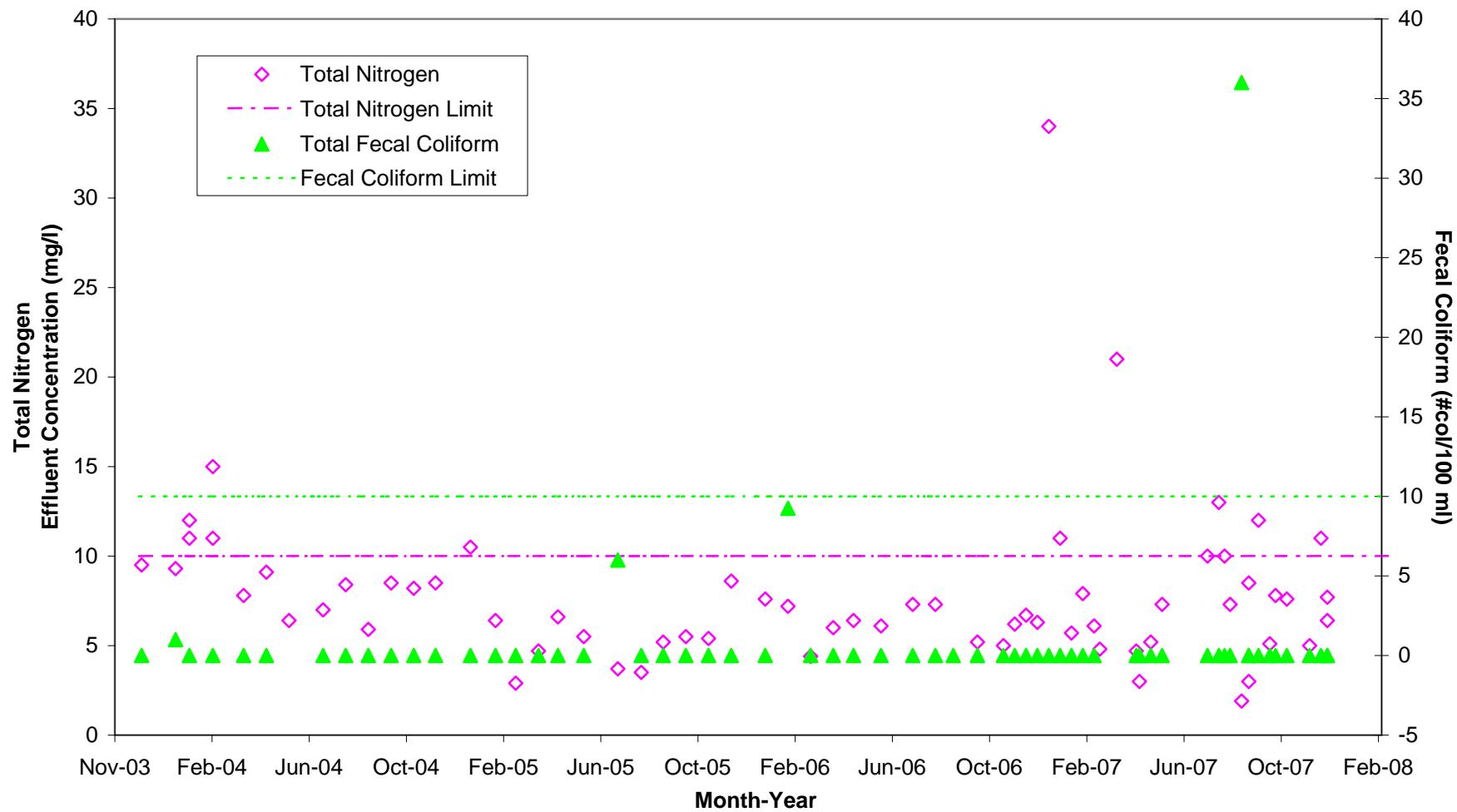
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Escherichia Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	36800	24500	30	20	30	20	10		10
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Mar-07	32487	13289	3*	3*	1*	1*	4.8	26.5	
Mar-07			3*		1*		21	20	
Apr-07	40737	29986	3*	3*	1*	2.1	4.7	10.8	1*
Apr-07			3*		3.2		3	4.4	1*
May-07	28621	20161	3*	3*	1	1*	5.2	8.07	1*
May-07			3*		1*		7.3	21.1	1*
Jun-07									
Jul-07	24802	10025	3*	3*	9.7	5.85	10	33.5	1*
Jul-07			3*		2		13	24.7	1*
Aug-07	11180	5317	nd	3*	1*	3.4	10	nd	1*
Aug-07			3*		3.7		7.3	36.8	1*
Aug-07					1.0*		1.9	16.9	36
Sep-07	21841	13163	3*	3*	1.0*	1.4*	3	20.3	1*
Sep-07			nd		nd		12		1*
Sep-07			3*		1.8		8.5	18.2	1*
Sep-07			nd		nd		5.1		1*
Oct-07	20183	15618	3*	3*	1.2	1.4	7.8	35.2	1*
Oct-07			3*		1.7*		7.6	36.4	1*
Nov-07	33538	15591	3*	3*	1.7*	1.2*	5	28.7	1*
Nov-07			3*		1		11	21.6	1*
Dec-07	24971	12841	3*	3*	2.8	2	7.7	30.4	1*
Dec-07			3*		1.2		6.4	4.52	1*

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
DECEMBER 2003 - NOVEMBER 2007
PERMIT NO. UI0000396 - SALISBURY SCHOOL



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Salisbury School
Permit No.: UI0000396
Sampling Frequency: Quarterly
No. of Monitoring Wells: 2
Review Period: 12/03-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	Fecal Coliform (col/100ml)
Feb-03	MW 1	6.3	0.952	4*
	MW 2	3.7	0.327	4*
May-03	MW 1	2.6	0.304	4*
	MW 2	3.8	0.772	4*
Aug-03	MW 1	1.9	0.13	1*
	MW 2	1.8	0.086	1*
Nov-03	MW 1	1.9	0.584	1*
	MW 2	2.7	1.25	1*
Feb-04	MW 1	FROZEN	FROZEN	FROZEN
	MW 2	3	0.05	1*
May-04	MW 1	3.1	0.119	1*
	MW 2	4.3	0.049	1*
Aug-04	MW 1	1.1	0.085	2*
	MW 2	5.1	0.205	2*
Nov-04	MW 1	1*	0.64	2*
	MW 2	2.9	0.594	2*
Feb-05	MW 1	2	0.828	2*
	MW 2	4.4	3.6	2*
May-05	MW 1	2	0.299	2*
	MW 2	3.7	0.217	2*
Aug-05	MW 1	1.5	0.186	2
	MW 2	3.6	0.879	2
Nov-05	MW 1	1.1	0.083	6
	MW 2	3.3	0.644	2*
Feb-06	MW 1	1.2	0.395	2*
	MW 2	2.7	0.153	2*
May-06	MW 1	4.7	0.243	2*
	MW 2	3.2	0.266	2*
Aug-06	MW 1	1.1	0.19	2*
	MW 2	1.9	0.443	2*
Nov-06	MW 1	1.3	0.318	2*
	MW 2	2.6	0.173	2*
Feb-07	MW 1	1.2	0.375	2*
	MW 2	2.5	0.24	2*
May-07	MW 1	2.2	0.293	2*
	MW 2	3	0.126	2*
Aug-07	MW 1	1*	0.123	2*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	Fecal Coliform (col/100ml)
	MW 2	2.2	0.335	2*
Nov-07	MW 1	1*	0.157	2
	MW 2	2.3	0.119	2*

* = less than reported value

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: The Hearth, Madison, CT

Permit Issuance Date: 03/04/02

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Phosphorus

Application: Residential

Type: Treatment

Class: New

Pretreatment discharge type: Constructed Fill Liner

Point of Environment Concern: Toe of slope

Comments:

<u>Compliance summary (1/03 –5/06)</u>		Compliance Rate (%)
Total nitrogen (max limit = 10 mg/l)	0 violations/70 tests	100
Total phosphorus (max limit = 1 mg/l)	8 violations/70 tests	89
Fecal coliform No permit limit		---
BOD (avg. limit = 20 mg/l)	0 violations/ 35 test months	100
TSS (avg. limit = 20 mg/l)	0 violations/ 35 test months	100

Issues

- No significant issues.

Recommendations

- A letter is to be sent which cites the violations, requests that an explanation be provided, and reminds the permittee of violation reporting requirements.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for treatment without treatment.

Update (November 2006 – December 2007)

- 12/14/06 – The recommended letter was issued, and an appropriate response was received.
- Through December 2007, compliance with permit limits has been met for total nitrogen, total phosphorus, BOD, and TSS.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for treatment without treatment.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: The Hearth

Permit No.: UI0000354

Permit Issuance Date: 3/4/2002

Treatment Type: Zenon with Phosphorus Removal, No Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	13125	8750	30	20	30	20	10	1	
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Mar-02	1440	1091	3.28	2.14	9	5	12	13	0
Mar-02							14	11.6	
Apr-02	4590	1349	1.23	2*	6	3.5	10	15.3	1*
Apr-02								4.1	
May-02	1510	1017	1*	1*	2	1.5	6.6	18	0
May-02								12	
Jun-02	3520	1336	2*	1.5*	1	1	2.37	8.5	0
Jun-02								16	
Jul-02	2190	1476	1*	1*	3	2*	1.77	3.7	0
Jul-02								4.3	
Aug-02	7350	1521	1*	1*	1*	1*	3.2	8	1
Aug-02								10.6	
Sep-02	1786	1359	3.9	2*	3	2.5	2.2	5	0
Sep-02								5.7	
Oct-02	1829	1468	1*	1*	1*	1*	2.6	68	0
Oct-02								7.9	
Nov-02	1857	1373	1.7	1.4	5	3*	2.5	7	0
Nov-02								7	
Dec-02	14910	1690	1*	1*	2	1.5*	2	0.2	0
Jan-03	1698	1408	1*	1*	1	1	8.4	1.1	0
Feb-03	1893	1486	1*	1*	6	5	2.4	0.74	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	13125	8750	30	20	30	20	10	1	
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Mar-03	1806	1482	1*	1*	8	4.5	3.6	1.5	0
Mar-03								1.9	
Apr-03									
May-03	3891	2274	ND	ND	ND	ND	1.5	0.14	ND
Jun-03									
Jul-03	2713	2208	ND	ND	ND	ND	3.1	0.8	ND
Aug-03	3628	2110	ND	ND	ND	ND	2.2	0.07	ND
Sep-03									
Oct-03	3984	2675	2.1	1.1	ND	ND	1.8	0.4	ND
Nov-03	3873	2927	ND	ND	ND	ND	2.5	1.2	ND
Dec-03									
Jan-04	7062	3404	ND	ND	13	8.5	3.1	0.35	ND
Feb-04	3654	2897	0	0	4	2	4.2	0.19	0
Mar-04	4617	2187	ND	ND	ND	1*	2.03	1.3	ND
Apr-04	5202	2566	ND	ND	ND	1*	0.96	0.31	ND
May-04	4997	2435	4*	4*	4	2	1.1	0.29	10*
Jun-04	2945	2420	4*	4*	2	1	1.5	0.27	10*
Jul-04	3861	2968	4*	4*	10	6	4.1	0.26	10*
Aug-04	5570	3503	4*	4*	1	1*	3	0.15	10*
Sep-04	4358	3148	4*	4*	2	1	2	0.08	10*
Oct-04	3430	2385	4*	4*	5	3	1.8	0.35	10*
Nov-04									
Dec-04	4274	1930	4*	4*	ND	ND	1.1	0.079	10*
Jan-05	4284	1790	4*	4*	3	3	1.5	0.78	10*
Feb-05	2067	1698	4*	4*	6	5.5	2.6	0.42	10*
Mar-05	4252	2335	4*	4*	1	1	4.3	0.79	10*
Apr-05	17075	3637	4*	4*	6	3	2.8	0.5	10*
May-05									

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	13125	8750	30	20	30	20	10	1	
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jun-05	3775	1574	4*	4*	2	1	1.4	0.23	15*
Jul-05	4920	2748	4*	4*	13	11	1.7	0.58	5*
Aug-05	3704	2603	4*	4*	2	1	3.8	1.3	140
Aug-05								3.2	
Sep-05	7646	2838	4*	4*	22	14	4.1	0.23	10*
Oct-05	2961	2394	4*	4*	10	8	2.8	2.6	5*
Nov-05	6251	2793	4*	4*	1	1	1	0.28	10*
Dec-05	2992	2092	4*	4*	1	1	2.2	1	10*
Jan-06	3184	2663	4*	4*	6	3.5	1.3	0.28	10*
Feb-06	5893	2726	4*	4*	5	4.5	4.2	0.16	10*
Mar-06	4265	2783	4*	4*	25	13	3	0.53	10*
Apr-06	NR	NR	4*	4*	4	3	1.9	0.12	10*
May-06	9899	8724	4*	3*	5	3	1.9	0.34	10*
Jun-06	5780	4824	2.8	3	4	3	1.3	0.52	10*
Jul-06	6120	4783	2*	2*	16	9	3.5	0.63	10*
Aug-06	8570	5537	2.9	3	14	8	1.9	0.47	10*
Sep-06	6303	4506	2*	2*	5	3	3.2	0.29	0
Oct-06	6303	4771	2*	2*	4	3.5	3	0.12	0
Nov-06	2044	669	2*	2*	1.0*	7	0.87	0.055	0
Nov-06			2*		7		0.33	0.074	0
Dec-06	NR	NR	2*	2*	7	4	1*	0.2	0
Dec-06			2*		1		1*	0.12	0
Jan-07	NR	NR	4.8	3.4*	1	1	1*	0.35	0
Jan-07			2*		1		2.8	0.046	0
Feb-07	NR	NR	2*	2*	1	1*	3.6	0.1	0
Feb-07			2*		1*		2.4	0.066	0
Mar-07	7818	6517	2*	2*	1	3.5	1.7	0.094	0
Mar-07			2*		6		1*	0.054	104

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	13125	8750	30	20	30	20	10	1	
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Apr-07	11640	8062	2*	2*	7	4*	1	0.38	0
Apr-07			2*		1*		1	0.032	0
May-07	9329	6895	2*	2*	5	3.5	2.1	0.51	0
May-07			2*		2		1.5	0.04	0
Jun-07	9639	7831	2*	2*	4	2.5	7.5	0.24	0
Jun-07			2*		1		3.3	0.21	0
Jul-07	10988	8208	2.4	2.8	5	3*	5.8	0.15	0
Jul-07			3.2		1*		4.1	0.099	0
Aug-07	10424	8279	2*	3*	4	4.5	5.4	0.11	0
Aug-07			4		5		1.4	0.23	0
Sep-07	9508	8099	2	2*	6	7	2.9	0.34	0
Sep-07			2		8		2.8	0.16	
Oct-07	9031	7347	2*	2*	7	5	1.6	0.3	0
Oct-07			2*		3		4.8	0.33	0
Nov-07	10087	7844	2*	2*	4	2	2.8	0.55	0
Nov-07			2*		1		2.3	0.17	0
Dec-07	9217	7200	2*	2*	1	1	2.9	0.22	1
Dec-07							2	0.056	

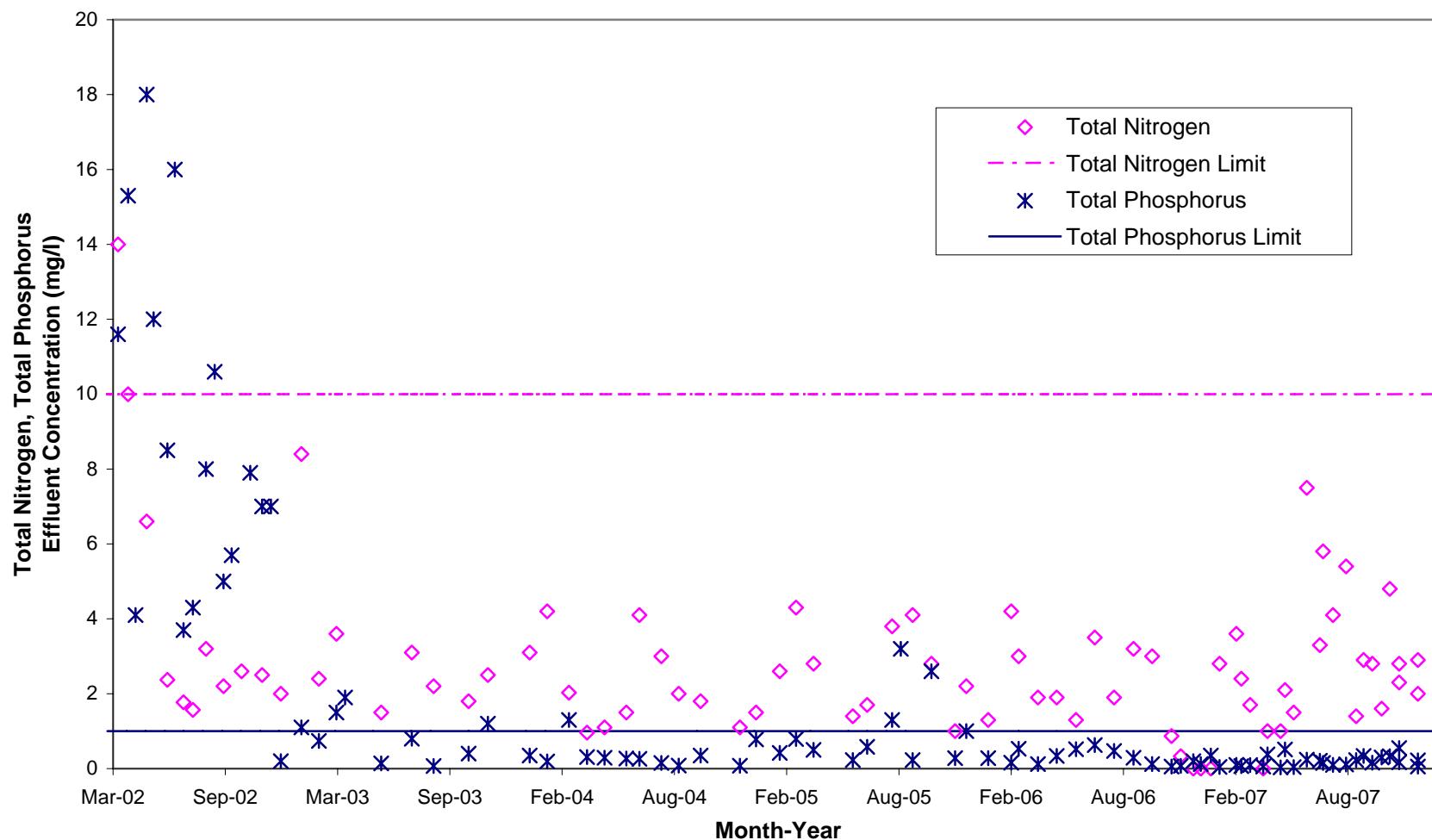
* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

NR means not reported

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
MARCH 2002 - DECEMBER 2007
PERMIT NO. UI0000354 - THE HEARTH



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: The Hearth
Permit No.: UI0000354
Sampling Frequency: Monthly
No. of Monitoring Wells: 2
Review Period: 1/03-12/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Mar-02	MW 1	4	0.11	10*
	MW 2	7.43	0.23	10*
Apr-02	MW 1	8.7	0.98	10*
	MW 2	7.6	0.34	10*
May-02	MW 1	12.5	0.11	10*
	MW 2	7.6	0.37	10*
Jun-02	MW 1	5.5	0.29	10*
	MW 2	5.55	1.7	10*
Jul-02	MW 1	3.93	0.45	10*
	MW 2	7.8	0.27	10*
Aug-02	MW 1	2.8	0.33	10*
	MW 2	7.8	0.27	10*
Sep-02	MW 1	5.8	0.33	10*
	MW 2	7.5	0.41	200
Oct-02	MW 1	3.31	0.48	10*
	MW 2	5.3	1	10*
Nov-02	MW 1	2.8	0.33	10*
	MW 2	7.8	0.27	10*
Dec-02	MW 1	1.74	0.4	10*
	MW 2	2.52	0.69	10*
Jan-03	MW 1	6.86	2	10*
	MW 2	1.53	0.54	10*
Feb-03	MW 1	2.16	0.98	10*
	MW 2	5.9	0.17	10*
Mar-03	MW 1	1.22	0.53	10*
	MW 2	2.8	1.4	10*
May-03	MW 1	1.78	0.28	ND
	MW 2	4.81	1.4	ND
Jul-03	MW 1	2.09	0.25	ND
	MW 2	3.21	0.41	ND
Aug-03	MW 1	ND	ND	ND
	MW 2	4	ND	ND
Oct-03	MW 1	3.8	4.5	0
	MW 2	5	5.58	0
Nov-03	MW 1	ND	ND	0
	MW 2	0.67	ND	0
Dec-03	MW 1	DRY	DRY	DRY
	MW 2	7.79	ND	0
Jan-04	MW 1	DRY	DRY	DRY
	MW 2	7.79	ND	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	Fecal Coliform (col/100ml)
Feb-04	MW 1	DRY	DRY	0
	MW 2	7.79	0	0
Mar-04	MW 1	1.86	ND	5
	MW 2	0.61	ND	0
Apr-04	MW 1	3.2	0	0
	MW 2	3.36	0	0
May-04	MW 1	0.54	ND	0
	MW 2	ND	ND	0
Jul-04	MW 1	3.44	ND	0
	MW 2	19.5	0.72	0
Aug-04	MW 1	1.4	ND	1
	MW 2	2.1	0.42	43
Dec-04	MW 1	1	ND	0
	MW 2	1.1	0.78	4
Jan-05	MW 1	7.5	1.4	0
	MW 2	7.49	0.68	0
Feb-05	MW 1	1.37	0.61	0
	MW 2	0.63	0.4	0
Mar-05	MW 1	ND	ND	0
	MW 2	1.9	ND	0
Apr-05	MW 1	1.6	ND	1
	MW 2	1.1	ND	3
Jun-05	MW 1	1.1	3.5	0
	MW 2	1.4	ND	0
Jul-05	MW 1	1.2	0.25	27
	MW 2	0.8	2.3	53
Aug-05	MW 1	3.08	3.4	0
	MW 2	3.3	0.54	0
Sep-05	MW 1	3.3	2.9	0
	MW 2	1	0.75	2
Oct-05	MW 1	0.7	1.4	8
	MW 2	2.1	0.47	3
Nov-05	MW 1	1	ND	0
	MW 2	2.6	ND	27
Dec-05	MW 1	1.5	ND	0
	MW 2	2.29	ND	0
Jan-06	MW 1	1.28	ND	0
	MW 2	0.67	ND	0
Feb-06	MW 1	0.99	0.13	0
	MW 2	1.44	0.03	0
Mar-06	MW 1	1.07	0.3	0
	MW 2	2.48	ND	0
Apr-06	MW 1	2.64	0.25	0
	MW 2	2.73	0.04	0
May-06	MW 1	1.81	0.26	0
	MW 2	2.2	0.1	0
Jun-06	MW 1	2	0.06	26
	MW 2	1.29	0.11	7

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	Fecal Coliform (col/100ml)
Jul-06	MW 1	1.79	0.04	0
	MW 2	1.26	0.08	32
Aug-06	MW 1	1.22	0.27	3
	MW 2	1.56	0.35	13
Sep-06	MW 1	1.83	0.1	40
	MW 2	1.71	0.62	0
Oct-06	MW 1	1.9	0.16	0
	MW 2	1.49	0.55	0
Nov-06	MW 1	1.2	0.2	0
	MW 2	2.7	0.18	0
Dec-06	MW 1	2.1	1.8	6
	MW 2	0.49	0.6	2
Jan-07	MW 1	0.68	0.1	0
	MW 2	1.45	0.16	0
Feb-07	MW 1	4.67	3.4	0
	MW 2	5.96	0.7	0
Mar-07	MW 1	2	0.1	0
	MW 2	6.2	5.2	0
Apr-07	MW 1	0.68	0.29	0
	MW 2	0.95	0.22	0
May-07	MW 1	1.92	0.24	0
	MW 2	1.12	1	0
Jun-07	MW 1	1.12	0.58	0
	MW 2	2.28	0.38	0
Jul-07	MW 1	1.98	2	0
	MW 2	2.27	0.26	6
Aug-07	MW 1	1.03	0.59	4
	MW 2	1.3	1.8	1
Sep-07	MW 1	0.85	0.34	0
	MW 2	0.7	0.02	0
Oct-07	MW 1	0.92	0.91	0
	MW 2	0.85	0.03	0
Nov-07	MW 1	2.34	2.8	0
	MW 2	3.15	2.8	0
Dec-07	MW 1	2.77	0.68	0
	MW 2	2.48	0.08	0

ND = Non Detect

* = Less than reported value

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Water's Edge, Westbrook, CT

Permit Issuance Date: 09/07/99

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Fecal Coliform

Application: Commercial

Type: Treatment/ Partial Recycle

Class: Upgrade Modification

Pretreatment discharge type: Constructed Fill
Natural Soils

Point of Environment Concern: Toe of slope
Property line

Comments:

<u>Compliance summary (1/04 – 8/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	4 violations/64 tests 94
Total phosphorus (max limit = 15 mg/l)	18 violations/64 tests 72
Fecal coliform (avg limit = 4 col/100 ml)	0 violations/32 test months 100
BOD (avg. limit = 20 mg/l)	0 violations/32 test months 100
TSS (avg. limit = 20 mg/l)	0 violations/32 test months 100

Issues

- Phosphorus removal treatment is not currently provided.

Recommendations

- A Notice of Violation (NOV) is to be issued.

Groundwater summary

- Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

Update (November 2006 – January 2008)

- *11/30/06 – An NOV was issued for non-compliance with effluent limits on total phosphorus.*
- *The NOV response proposed ceasing the discharge of 2000 gallons per month of high phosphorus wastewater from the Laundry wastewater treatment system to the Hotel Zenon wastewater treatment system, sending it out for off site treatment and disposal instead.*
- *Further corrective action was initiated on October 15, 2007, consisting of replacing all laundry detergents with phosphate free detergents. On November 28, 2007, Waters Edge took the additional step of pumping out the entire system's biomass to reduce the phosphorus concentration within the system.*

Groundwater summary

- *Total nitrogen, total phosphorus & fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.*

Additional Recommendations

- *A letter was sent to Waters Edge to require them to institute any further source reduction measures possible, because the Department's next step, should it become necessary, will be to require the installation of a phosphorus removal system.*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Water's Edge

Permit No.: UI0000087

Permit Issuance Date: 9/7/1999

Treatment Type: Zenon/Partial Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units) (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	37881	25250	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Sep-99					6		6.15		
Oct-99			1*		0		6.67		
Nov-99			2		3		17		
Dec-99	22180	15042	1*	1*	1	1	24	11.4	2
Dec-99							13		
Jan-00	20830	14518	1.02	1*	4	3	9.9	9	1.5
Feb-00	19885	11930	1.3	1.15	1*	1*	5	10.5	3.3
Mar-00									
Apr-00									
May-00									
Jun-00	28780	18795	2*	1.5*	2	1.5	5	28	1*
Jul-00	31380	24214	3*	2*	1	1	5.4	9.5	0
Aug-00	30960	24757	7.2	5.1*	34	28	8.3	13.5	3.4
Sep-00									
Oct-00									
Nov-00									
Dec-00									
Jan-04	35270	12209	1.2	1.1	1	1*	2.7	8.9	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	37881	25250	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Feb-04	56250	15212	1*	1*	1	1*	4.5	12.2	0
Mar-04	28710	13095	2.4	1.7*	1*	1*	3.5	10.3	0
Apr-04	25400	14895	3.9	2*	1*	1*	4	12	0
May-04	61000	17235	1*	1*	1*	1*	4.4	14	0
Jun-04	38240	16768	1*	1*	1*	1*	3.9	14.3	1*
Jul-04	45970	23117	1*	1*	1.2	1.1*	5.6	12	0
Aug-04	56710	24565	2.2	1.1*	3	2	5.8	12	0
Sep-04	62590	18682	1.4	1.2	ND	ND	5.3	14.2	0
Oct-04	45540	16054	ND	ND	ND	ND	5.3	13.3	0
Nov-04	43340	15217	1	0.5	1	0.5	12	19.9	0
Dec-04	52760	12268	1	0.5	ND	ND	8	16.4	0
Jan-05	42400	10572	ND	ND	ND	ND	8	24.2	0
Feb-05	53789	12754	ND	ND	ND	ND	9.5	22.7	0
Mar-05	33970	13281	1	0.5	1	0.5	5.3	13	0
Apr-05	26620	15518	ND	ND	ND	ND	4.8	19	0
May-05	34560	15930	1.5	1*	1	0.5	4.6	17	0
Jun-05	33340	17946	1.1	1*	1	1	11.6	25.6	0
Jul-05	55880	25374	1.9	1.45	ND	ND	10.6	26	0
Aug-05	31636	14538	ND	ND	ND	ND	11.6	18.8	0
Sep-05	26940		ND	ND	ND	1*	4.3	17.7	0
Sep-05			ND		1			16.3	
Oct-05	35203		ND	1*	ND	ND	4.77	14.36	0
Nov-05	24990		ND	1*	ND	ND	3.93	18.1	0
Dec-05	25700		ND	ND	3	1.5	2.46	10.47	0
Jan-06	24877		ND	ND	2	1	3.7	15.2	0
Feb-06	29040		ND	ND	ND	ND	2.5	11.3	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	37881	25250	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Mar-06	24643		ND	ND	ND	ND	3.8	13	0
Apr-06	27903		ND	ND	ND	ND	5	14.5	0
May-06	31052		ND	ND	ND	ND	3.6	15.3	0
May-06								18.9	
Jun-06	26991		ND	ND	3	1.5	4.3	23.4	0
Jul-06	32648		ND	ND	ND	ND	14.8	23.6	0
Aug-06	30629		ND	ND	2	2	6.9	15.4	0
Sep-06	27800		ND	ND	ND	ND	4.81	25.47	0
Sep-06								18.79	0
Oct-06	24204		ND	ND	1	1.5	6.25	19.1	0
Oct-06			ND		2		6.36	25.62	0
Nov-06	30570		ND	ND	ND	ND	4.94	17.24	8
Nov-06								15.84	0
Dec-06	19052	14723	ND	ND	ND	1	3.01	19.57	0
Dec-06							2.97	12.27	0
Jan-07	22420	12050	ND	ND	ND	1	2.43	9.78	0
Jan-07			ND		2		2.46	9.32	3
Jan-07								9.01	0
Jan-07								13.51	6
Feb-07	26040	12642	ND	ND	ND	ND	3.15	16.61	0
Feb-07							3.08	13.04	0
Mar-07	22748	12778	ND	ND	2	1.5	2.96	16.3	0.75
Mar-07							2.72	12.42	0
Apr-07	26052	18244	ND	ND	1	1	2.92	17.7	0
Apr-07							2.51	7.45	0
May-07	25835	16400	ND	ND	2	1	5.15	13.82	0
May-07							3.54	12.73	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter (units)	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (gpd)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	37881	25250	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jun-07	29962	19877	ND	ND	ND	ND	6.97	13.2	0
Jun-07							4.77	12.5	0
Jul-07	42288	NR	1.2	1.1	1	1*	8.46	18	0
Jul-07							8.35	14.44	0
Aug-07	31509	NR	5.6	2.8	ND	ND	8.12	21.12	0
Aug-07							7.72	12.42	0
Sep-07	29777	NR	ND	ND	2	2	4.54	9.01	0
Sep-07							3.52	16.3	0
Oct-07	23708	NR	ND	ND	3	2.5	4.53	21.43	0
Oct-07							3.56	15.37	0
Nov-07	26370	NR	ND	ND	2	2	2.7	17.39	0
Nov-07					2		3.15	17.08	0
Dec-07	20141	NR	ND	ND	ND	ND	3.49	16.3	0
Dec-07							2.87	6.99	0
Jan-08	25680	10886	ND	ND	ND	ND	2.3	3.88	0
Jan-08							4.15	4.66	0
Jan-08	30466	15343	ND	ND	ND	ND	2.3	6.89	0
Jan-08							4.15	7.85	0

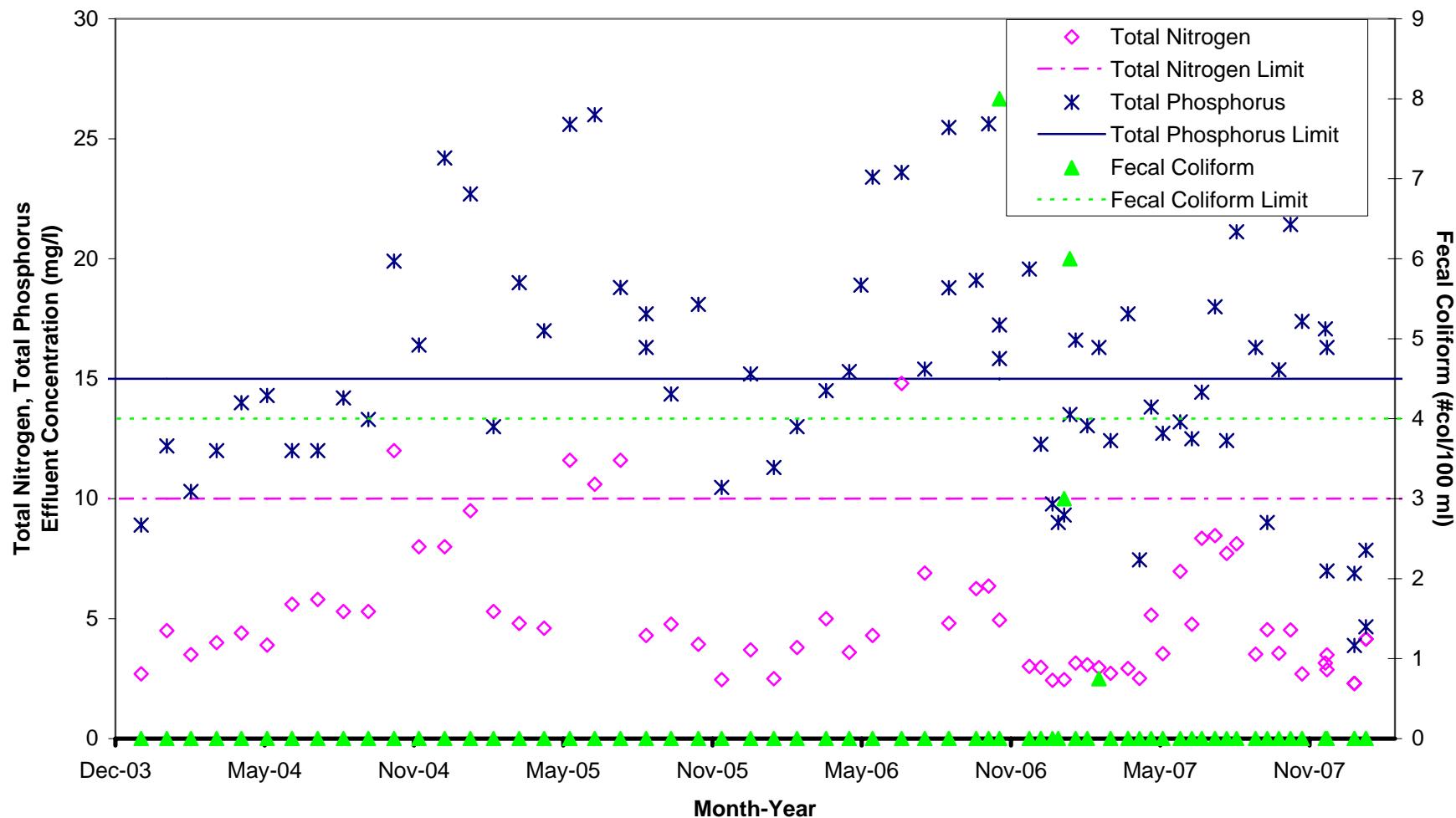
* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

ND means non-detect. Detection level for Oct. 06 through Dec. 06 is 1 mg/l.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2004 - JANUARY 2008
PERMIT NO. UI0000087 - WATER'S EDGE



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Water's Edge
Permit No.: UI0000087
Sampling Frequency: Quarterly
No. of Monitoring Wells: 6
Review Period: 1/04-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Feb-00	MW 1			10*
	MW 2	4.81	0.01*	10*
	MW 3	2.9	0.04	10*
	MW 4	3.72	0.01*	10*
	MW 5	2.86	0.01	10*
	MW 6	2.16	0.56	10*
May-00	MW 1	1.81	0.58	10*
	MW 2	1.0*	0.42	10*
	MW 3	2.12	0.34	10*
	MW 4	1.35	0.57	10*
	MW 5	1.61	0.01*	10*
	MW 6			10*
Feb-04	MW 1	2.58	0.22	1
	MW 2	1.54	0.07	0
	MW 3	3.26	0.32	0
	MW 4	3.41	0.37	0
	MW 5	2.1	0.74	0
	MW 6	3.29	0.66	0
May-04	MW 1	1.77	0.12	0
	MW 2	1.62	0.89	0
	MW 3	3.36	1.13	0
	MW 4	3.87	0.44	0
	MW 5	1.5	.08*	0
	MW 6	1.88	0.73	0
Aug-04	MW 1	2.01	0.22	4
	MW 2	1.67	0.13	23
	MW 3	2.49	.05*	0
	MW 4	3.5	0.32	0
	MW 5	1.51	.05*	0
	MW 6	2.27	0.8	80
Nov-04	MW 1	1.4	0.66	0
	MW 2	1.93	.08*	0
	MW 3	3.43	.05*	0
	MW 4	3.51	.05*	0
	MW 5	2.27	0.52	0
	MW 6	1.87	0.23	0
Feb-05	MW1	11.51	0.23	0
	MW2	1.5	3.61	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
	MW3	5.87	7.53	0
Feb-05	MW 1	2.67	0.09	0
	MW 2	3.19	0.05	0
	MW 3	5.63	ND	0
	MW 4	4.31	0.15	0
	MW 5	2.41	0.1	0
	MW 6	2.02	0.35	0
May-05	MW 1	3.38	0.07	0
	MW 2	4.41	ND	0
	MW 3	6.58	1.76	0
	MW 4	3.72	0.13	0
	MW 5	0.69	ND	0
	MW 6	1.38	ND	2
Aug-05	MW 1	4.03	0.12	0
	MW 2	5.09	ND	0
	MW 3	4.9	ND	0
	MW 4	4.61	ND	0
	MW 5	1.37	ND	0
	MW 6	2	0.12	0
Nov-05	MW 1	4.34	0.1	0
	MW 2	3.86	0.05	0
	MW 3	6.81	0.06	0
	MW 4	3.46	ND	0
	MW 5	3.94	ND	0
	MW 6	2.69	ND	0
Feb-06	MW 1	2.44	0.08	0
	MW 2	3.35	0.12	0
	MW 3	3.99	ND	0
	MW 4	4.31	ND	0
	MW 5	3.14	ND	0
	MW 6	3.42	0.1	0
May-06	MW 1	2.16	0.09	0
	MW 2	2.92	0.21	0
	MW 3	2.44	ND	0
	MW 4	3.93	0.05	0
	MW 5	1.28	ND	0
	MW 6	1.05	0.14	0
Aug-06	MW 1	2.24	0.16	0
	MW 2	2.85	0.29	1
	MW 3	2.88	0.07	2
	MW 4	4.03	0.07	0
	MW 5	1.26	ND	0
	MW 6	2.08	0.32	25
Nov-06	MW 1	2.37	0.11	0
	MW 2	2.36	0.57	0
	MW 3	5.55	0.06	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
	MW 4	3.61		ND 0
	MW 5	2.24		ND 0
	MW 6	2.02		0.54 0
Dec-06	MW 1			
	MW 2			
	MW 3			
	MW 4			
	MW 5			
	MW 6			
Feb-07	MW 1	2.91	0.25	0
	MW 2	3.04	0.71	0
	MW 3	3.79	0.21	0
	MW 4	5.16	0.07	0
	MW 5	2.63	ND	0
	MW 6	2.22	0.41	0
May-07	MW 1	1.48	0.62	0
	MW 2	0.73	1.16	0
	MW 3	1.63	ND	0
	MW 4	1.96	ND	0
	MW 5	0.56	ND	0
	MW 6	5.6	0.77	0
Aug-07	MW 1	2.68	0.16	0
	MW 2	2.35	1.08	0
	MW 3	1.73	0.29	0
	MW 4	3.21	0.07	0
	MW 5	0.99	ND	6
	MW 6	2.58	ND	0
Nov-07	MW 1	2.4	0.29	5
	MW 2	1.32	1.16	0
	MW 3	2.68	1.14	3
	MW 4	2.87	0.06	0
	MW 5	1.82	ND	0
	MW 6	2.49	ND	12

ND = Non Detect

* = Less than Reported Level

NR = not required

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Westbrook Factory Stores, Westbrook, CT

Permit Issuance Date: 03/11/96

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Phosphorus Fecal Coliform

Application: Commercial

Type: Treatment/Recycle

Class: New

Pretreatment discharge type: Constructed Fill
Natural Soils

Point of Environment Concern: Toe of slope

Comments:

<u>Compliance summary (1/03 – 6/06)</u>		<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	23 violations/84 tests	73
Total phosphorus (max limit = 15 mg/l)	0 violations/84 tests	100
Fecal coliform (avg limit = 4 col/100 ml)	0 violations/42 test months	100
BOD (avg. limit = 20 mg/l)	0 violations/42 test months	100
TSS (avg. limit = 20 mg/l)	0 violations/42 test months	100

Issues

- There were infrequent violations (3) of the total nitrogen limit since February 2004.

Recommendations

- A letter is to be sent which cites the violations, requests that an explanation be provided, and reminds the permittee of violation reporting requirements.

Groundwater summary

- Total nitrogen, total phosphorus and fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment. There were reporting issues with several monitoring periods that need to be addressed with the permittee.

Update (November 2006 – December 2007)

- 12/14/06 – The recommended letter was issued, and an appropriate response was received.
- Through December 2007, compliance with permit limits has been met for total nitrogen, total phosphorus, BOD, TSS and fecal coliform.

Groundwater summary

- One monitoring well (MW-1) had one unusually high total nitrogen result which would appear to be a reporting error. Other results for total nitrogen, total phosphorus and fecal coliform indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Westbrook Factory Stores

Permit No.: UI0000290

Permit Issuance Date: 3/11/1996

Treatment Type: Zenon/Recycle with Phosphorus Removal

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4126		30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.	2/mo.		2/mo.	1/wk.
Mar-96			1*	1*	15	3.6	10.52	0.52	0.2
Apr-96			1.6	1.1	8	2*	26.9	0.3	0
May-96			1*	1*	2.8	1.4	13	0.08	1*
Jun-96			1	1	1.4	1.3	9.5	0.13	0
Jul-96			1.8	1.1	4	2.2	10	0.43	0
Aug-96			1.2	1.1	17	3.3	15.2	2.89	0
Sep-96			3.6	1.5	5.5	3.2	22.3	6	0
Oct-96			1*	1*	2.5	1	4.9	1.5	0
Nov-96			1	1	7	4	6.7	2.3	0
Dec-96			1*	1*	1*	1*	6.65	0.68	2
Jan-03	6560	2399	3*	2.5*	3	2	26	9.7	0
Jan-03							11		
Feb-03	3380	1023	1*	1*	4	3	11.35	9.05	0
Mar-03	3290	338	1.52	1*	2	1.5	9	2.85	0
Apr-03									
May-03	4090	1131	ND	ND	ND	ND	21	0.93	ND
May-03							28		
Jun-03	3980	1256	ND	ND	20	10	17	2	ND
Jun-03							33		
Jul-03	1940	1389	ND	ND	ND	ND	39	4.8	ND

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4126		30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.	2/mo.		2/mo.	1/wk.
Jul-03							67		
Aug-03	2060	1079	ND	ND	ND	ND	65	13	ND
Aug-03							46		
Sep-03	2160	1217	0	0	0	0	37	14	0
Sep-03							37		
Oct-03	5430	1346	2.7	1.4	ND	ND	30	5.5	ND
Oct-03							39		
Nov-03	2347	1158	ND	ND	ND	ND	65	7.6	ND
Nov-03							52		
Dec-03	3166	1152	ND	ND	2	1	17	1.7	ND
Dec-03							12		
Jan-04	2016	809	ND	ND	6	3	6.9	0.058	ND
Feb-04	1213	673	0	0	6	4.5	14	0.039	0
Mar-04	1753	727	ND	ND	7	3.5	5.9	0.8	ND
Apr-04	4000	1140	ND	ND	4	3	3.3	2	ND
May-04	3560	1039	4*	4*	4	3	2.84	0.098	ND
Jun-04	2593	1138	4*	4*	2	1	4.3	0.098	RE
Jul-04	3975	1158	4*	4*	10	5	5.4	0.068	RE
Aug-04	2193	1141	4*	4*	6	3	6.8	1.4	RE
Sep-04	4105	1312	4*	4*	7	5	5.3	12	RE
Oct-04	1947	838	4*	4*	5	5	3.3	0.24	RE
Nov-04	5420	1633	4*	4*	7.2	4.1	7.2	0.04	RE
Dec-04	1765	896	4*	4*	9	5	3	0.046	2.5*
Jan-05	1323	585	4*	4*	4	2	8.3	ND	0
Feb-05	1290	719	4*	4*	7	3.5	23	0.043	0
Mar-05	1925	809	4*	4*	6	5.5	4.2	0.023	0.5

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4126		30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.	2/mo.		2/mo.	1/wk.
Apr-05	1883	613	4*	4*	13	9	3.8	0.054	0
May-05	1402	526	4*	4*	6	3	3.8	0.058	0
Jun-05	12985	2372	4*	4*	13	7	85	0.33	0
Jul-05	7408	1411	4*	4*	4	2.5	9.9	0.12	0
Aug-05	3635	391	4*	4*	9	6.5	4	1.4	0
Sep-05	5135	1708	4*	4*	9	8	7.7	1.2	0
Oct-05	11613	3253	4*	4*	9	7	3.2	0.81	0
Nov-05	10506	2732	4*	4*	6	4.5	23	6.9	0
Dec-05	5233	2212	4*	4*	8	5	2.2	3.6	0
Jan-06	12111	2049	4*	4*	3	3	1.6	0.22	1*
Feb-06	4584	1458	4*	4*	10	5	12	0.3	0
Mar-06	4355	1583	16	10*	6	6	5.3	5.2	0
Apr-06	5181	1673	4*	4*	6	4	6.2	0.2	0
May-06	6057	1990	4*	3*	8	4.5	4.9	0.11	2*
Jun-06	4464	2400	2*	2*	10	4.7	8.4	1.2	0
Jul-06	10500	8655	2*	2*	17	12.5	4.2	2.6	0
Aug-06	9513	7097	2*	2*	4	4	4.9	3.6	10*
Sep-06	10460	4774	2*	2*	2	1.5	8.5	7	0
Oct-06	6300	3425	2*	2*	4	2.5	6.6	4.6	0
Nov-06	3778	1395	2*	2*	1*	1	1.4	2.9	0
Nov-06			2*		1*		8.2	8.3	1
Dec-06	4084	1217	2*	2*	3	2	10	3.1	0
Dec-06			2*		1*		2.3	3.9	0
Jan-07	3784	1078	2*	2*	1	1	5.3	0.27	0
Jan-07			2*		1		3.2	0.66	0
Feb-07	4076	738	2*	2*	3	3	6.7	4.6	0

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	4126		30	20	30	20	10	15	4
Sample Freq.	Daily	Daily	2/mo.		2/mo.	2/mo.		2/mo.	1/wk.
Mar-07	2759	1178	2*	2*	1*	3	5.7	0.53	0
Mar-07			2*		1*		2.7	0.26	0
Mar-07			2*		6		2.4	0.28	0
Apr-07	3042	1627	2*	2*	3	4	4.8	0.24	0
Apr-07			2*		5		5.5	2	0
May-07	2433	419	9.7	5.9	6	6	5	4.8	0
May-07			2*		6		5.3	4	0
Jun-07	NR	NR	2.6	2.3*	5	3*	4.7	4.8	0
Jun-07			2*		1*		6.2	1.4	0
Jul-07	NR	NR	2*	2*	4	3.5	6.4	1.8	0
Jul-07			2*		3		7.1	4.3	0
Aug-07	NR	NR	2*	2*	4	6	6.6	9.2	0
Aug-07			2*		8		1.1	2.4	0
Sep-07	6380	2358	2*	2*	10	5	3.9	1.1	1
Sep-07			2*		1*		4.4	1.6	0
Oct-07	2444	1491	2*	2*	3	2*	4.3	1.3	0
Oct-07			2*		1*		5.2	7.5	0
Nov-07	3554	1176	2*	2*	5	4	6.1	6.5	0
Nov-07			2*		3		10	5.8	0
Dec-07	5474	1255	2*	2*	3	2	4.3	1.1	0
Dec-07							4.1	0.44	

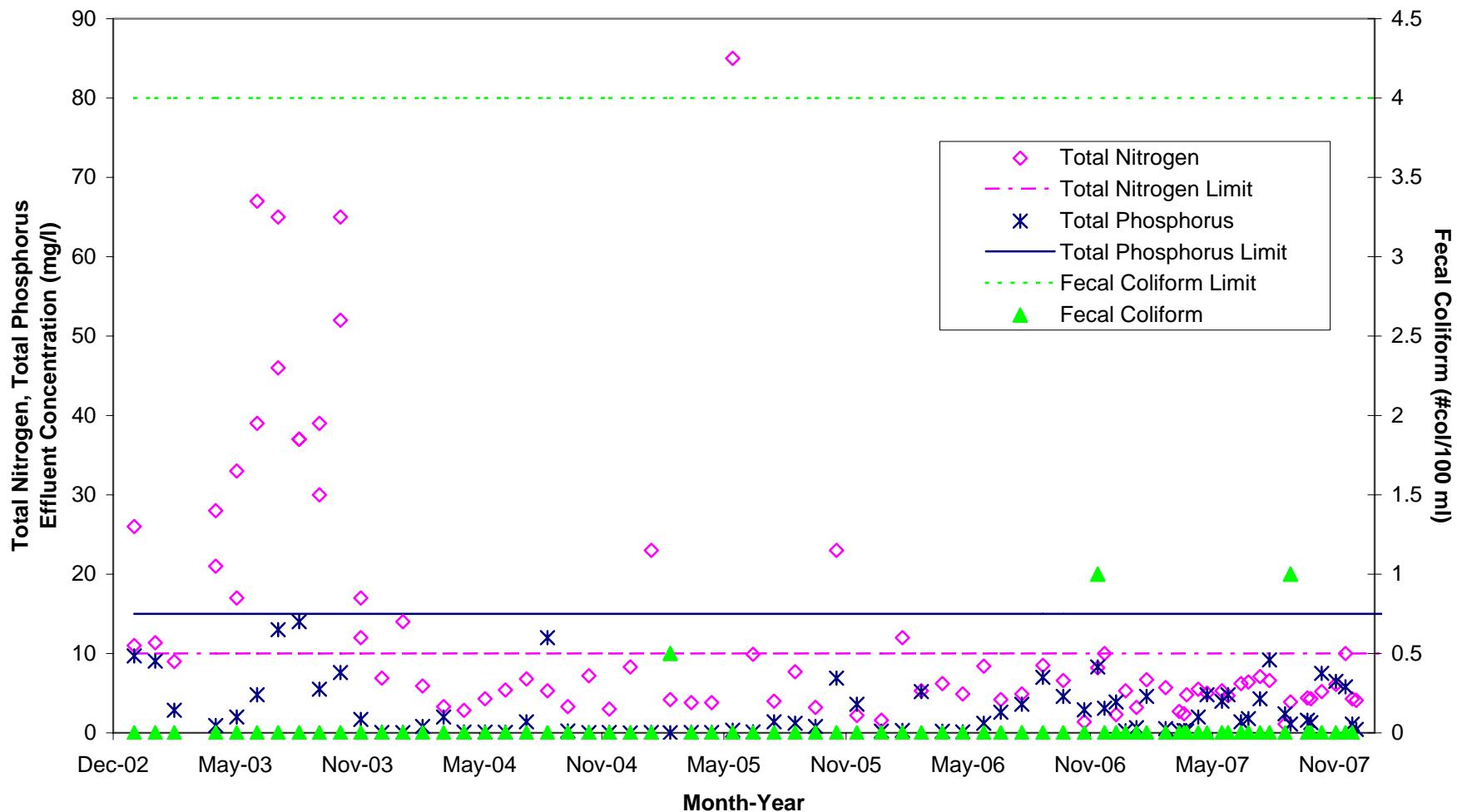
* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

NR means not reported

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2003 - DECEMBER 2007
PERMIT NO. UI0000290 - WESTBROOK FACTORY STORES



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Westbrook Factory Stores
Permit No.: UI0000290
Sampling Frequency: Quarterly
No. of Monitoring Wells: 2
Review Period: 1/03-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	(col/100ml)
		(mg/l)	(mg/l)	
Mar-03	MW 1	1.1	0.03	10*
	MW 2	3.08	0.07	10*
Jun-03	MW 1	ND	ND	4
	MW 2	ND	ND	0
Aug-03	MW 1	ND	ND	ND
	MW 2	2.75	ND	ND
Nov-03	MW 1	0.02	ND	0
	MW 2	10	ND	ND
Feb-04	MW 1	Dry	Dry	Dry
	MW 2	Dry	Dry	Dry
Nov-04	MW 1	2.91	ND	0
	MW 2	4.11	ND	2
Jan-05	MW 1	1.1	3.9	0
	MW 2	NR	NR	NR
Mar-05	MW 1	NR	NR	NR
	MW 2	ND	0.29	0
Apr-05	MW 1	3.31	ND	3
	MW 2	4.69	ND	1
Jun-05	MW 1	RE	RE	RE
	MW 2	RE	RE	RE
Oct-05	MW 1	1	0.2	3
	MW 2	1.2	0.2	0
Feb-06	MW 1	3.67	0.07	0
	MW 2	2.87	0.1	0
May-06	MW 1	1.88	0.05	0
	MW 2	6.11	0.04	0
Aug-06	MW 1	2.94	0.67	117
	MW 2	6.82	0.08	108
Nov-06	MW 1	0.92	0.41	0
	MW 2	0.6	0.12	3
Feb-07	MW 1	2.49	0.46	0
	MW 2	4.19	1.1	0
May-07	MW 1	78.2	0.12	0
	MW 2	0.09	0.09	2
Aug-07	MW 1	2.82	1.7	0
	MW 2	4.03	0.53	0
Nov-07	MW 1	1.1	1.5	0
	MW 2	4.77	6.2	0

ND = Non Detect

CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	(col/100ml)

NR = Non Report

* = Less than reported value

RE = Reporting Error

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Weston Schools, Weston, CT

Permit Issuance Date: 09/07/05

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Fecal Coliform

Application: Institutional

Type: Treatment/Partial Recycle

Class: Upgrade Modification Repair

Pretreatment discharge type: Fill
Natural Soils

Point of Environment Concern: Property line

Comments:

<u>Compliance summary (1/05 – 8/06)</u>		<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	34 violations/40 tests	15
Total phosphorus (max limit = 15 mg/l)	2 violations/40 tests	95
Fecal coliform (avg limit = 200 col/100 ml)	0 violations/20 test months	100
BOD (avg. limit = 20 mg/l)	1 violation/20 test months	95
TSS (avg. limit = 20 mg/l)	0 violations/20 test months	100

Issues

- Serious inflow/infiltration problems have been identified as a likely significant factor in poor nitrogen removal performance.
- Flow monitoring data is missing and will be sought.

Recommendations

- A Notice of Violation (NOV) is to be issued.

Groundwater summary

- No groundwater data has been received by the Department.

Update (November 2006 – January 2008)

- *11/30/06 – An NOV was issued for non-compliance with effluent limitations on total nitrogen.*
- *The NOV response identified the attempt to identify and remove unknown sources of clean water inflow to the system which were believed to compromise effective treatment. This process was largely ineffective.*
- *On May 7, 2007 a new operator was retained. The new operator was able to identify a problem with the computer programmed control of system recirculation rates, leading to process chemistry irregularities and treatment deficiencies, and requiring a Zenon representative to rewrite programming instructions.*
- *Additionally, school officials have identified and corrected a problem related to the school's automatic flush toilets becoming stuck, thereby dumping large volumes of water on the treatment facility.*

Groundwater summary

- *Monitoring wells have only recently been located and their integrity was found to be compromised. Repairs are to be made.*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Weston School

Permit No.: UI0000392

Permit Issuance Date: 9/7/2005

Treatment Type: Zenon/Partial Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	16126	10000	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jan-05			4*	3.5*	1.5	1.5	54	6.37	10*
Jan-05							48		
Feb-05			2*	1.5*	1*	1*	85	7.9	10*
Feb-05							51		
Mar-05			4.1	3*	1*	1*	46	5.8	10*
Mar-05							55		
Apr-05			2*	2*	1.5	1.3*	32	8	10*
Apr-05							95		
May-05			5.5	3.8*	16	8*	81	16	10*
Jun-05			6*	4.5*	8	4.5*	69	11.4	10*
Jun-05							58		
Jul-05			2.2	1.6	2	1.5	40	6.4	10*
Jul-05							20		
Aug-05			5.4	4.5	2	2	18	3.6	10*
Sep-05			3.57	3.3*	3	2*	16	22	10*
Sep-05							87		
Oct-05			137	69	1	1*	76	10.2	10*
Oct-05							71		
Nov-05			1.55	1.55	3	2	112	9.8	10*
Nov-05							94		
Dec-05	24317	6526	4.7	3.5	2	1.5*	83	9.4	10*

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	16126	10000	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Dec-05							37		
Jan-06			4.8	3.7*	4	3.5	29	7.9	10*
Jan-06							27		
Feb-06			1.9	1.5*	5	3	58	14	10*
Mar-06	17162	5822	3*	2*	2	1.5*	69	15.8	10*
Mar-06							66		
Apr-06			1.07	1*	3	2.5	20	4.8	15*
Apr-06							14		
May-06			1.55	1.3*	4	3.5	16	6.9	10*
Jun-06			1*	1*	2	2	30	10.3	10*
Jun-06							27		
Jul-06			1*	1*	3	2*	10.3	3.9	10*
Aug-06			12.3	6.5*	13	7	21	5	10*
Sep-06	22132	8351	1*	1*	4	3	24.3	4.79	22*
Oct-06	22563	7524	3	2*	12	8	28.9	5.7	110
Nov-06	36065	7955	1*	1*	1	1*	18.57	5.74	64
Dec-06	25590	7095	5.43	3.21*	1*	1*	53.17	15.4	117.5*
Jan-07	32116	8652	1.4	1.2*	17	14	42.84	11.2	146*
Jan-08							24.3	5	
Feb-07	17495	5909	1*	1*	11	6*	56.51	12.8	10*
Feb-07							53.99	11.8	
Mar-07	36880	11509	1.02	1	8	7.5	87.28	11.9	10*
Mar-07							68.64	8.16	
Apr-07	29120	9088	1.22	1.03*	7	4.3*	80.26	12.7	29.2*
Apr-07							15.59	1.06	
Apr-07							2.78	0.94	
May-07	22248	9163	1*	1*	25	13.5	64.39	11.6	6*
May-07							58.82	11.3	

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

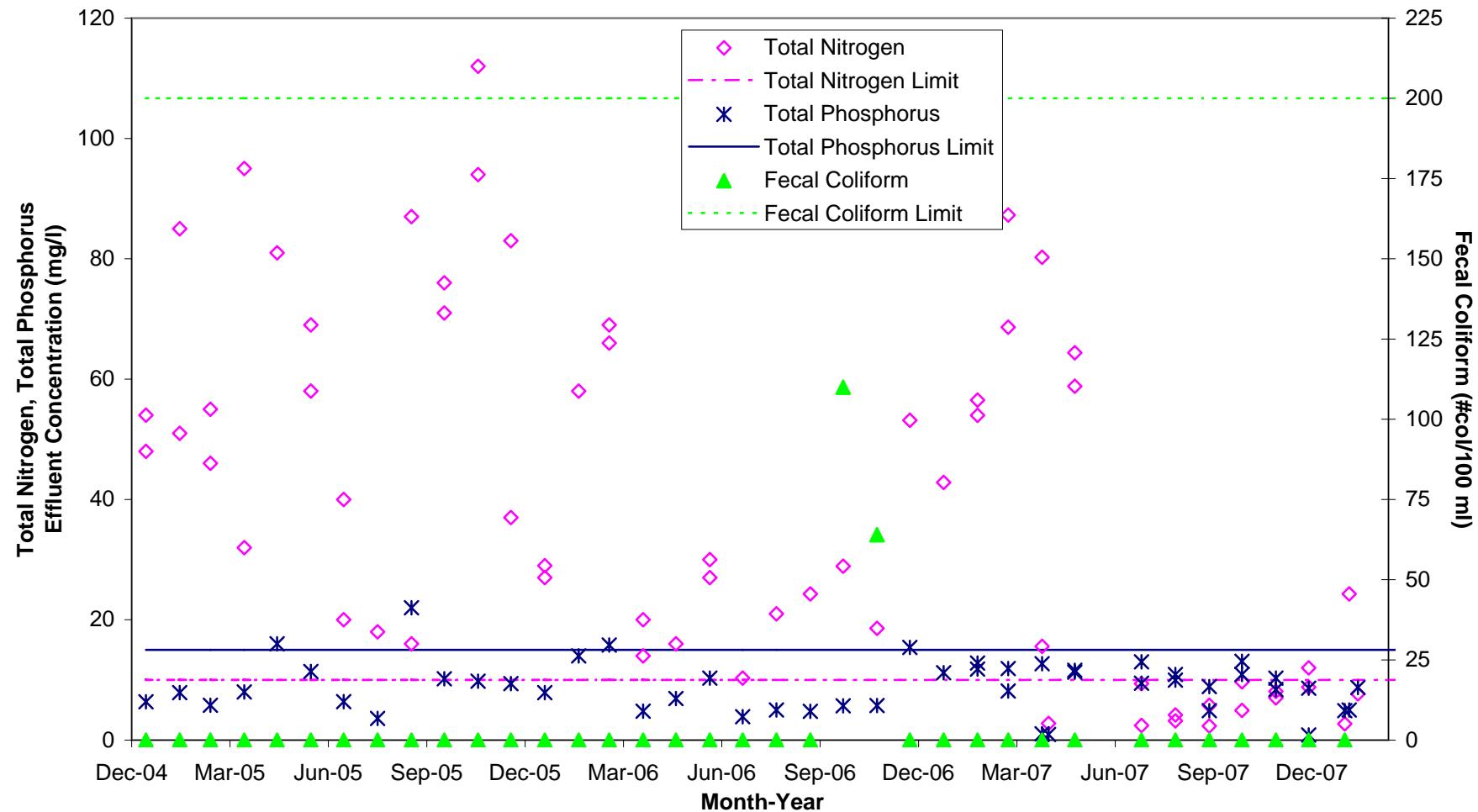
Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	16126	10000	30	20	30	20	10	15	200
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jun-07									
Jun-07									
Jul-07	NR	NR	1.85	1.43*	6	5.5	9.39	13	8.5*
Jul-07							2.44	9.46	
Aug-07	24763	3744	1.94	1.69	37	20	4.19	10.9	10*
Aug-07							3.19	9.96	
Sep-07	25409	7125	1*	1*	2.5	2.3	5.8	8.89	10*
Sep-07							2.34	4.89	
Oct-07	17636	7252	1*	1*	9.5	5.3	9.69	13.1	10*
Oct-07							4.93	10.9	
Nov-07	14556	6583	3.7	3.35*	3	2	8.09	10.3	10*
Nov-07							7.02	8.4	
Dec-07	26600	7262	3*	3*	2	1.8	12	8.64	10*
Dec-07					1.5		8.8	0.86	
Jan-08	15735	9198	3*	3*	1*	2*	2.71	4.9	10*
Jan-08			3*		3		7.7	8.73	

* Means less than the reported value.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2005 - JANUARY 2008
PERMIT NO. UI0000392 - WESTON SCHOOL



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Weston School

Permit No.: UI0000392

Sampling Frequency:

No. of Monitoring Wells:

Review Period: 1/05-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
Jan-05	MW 8			
	MW 9			
	MW 10			
Feb-05	MW 8			
	MW 9			
	MW 10			
Mar-05	MW 8			
	MW 9			
	MW 10			
Apr-05	MW 8			
	MW 9			
	MW 10			
May-05	MW 8			
	MW 9			
	MW 10			
Jun-05	MW 8			
	MW 9			
	MW 10			
Jul-05	MW 8			
	MW 9			
	MW 10			
Aug-05	MW 8			
	MW 9			
	MW 10			
Sep-05	MW 8			
	MW 9			
	MW 10			
Oct-05	MW 8			
	MW 9			
	MW 10			
Nov-05	MW 8			
	MW 9			
	MW 10			
Dec-05	MW 8			
	MW 9			
	MW 10			
Jan-06	MW 8			
	MW 9			

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)	Fecal Coliform (col/100ml)
	MW 10			
Feb-06	MW 8			
	MW 9			
	MW 10			
Mar-06	MW 8			
	MW 9			
	MW 10			
Apr-06	MW 8			
	MW 9			
	MW 10			
May-06	MW 8			
	MW 9			
	MW 10			
Jun-06	MW 8			
	MW 9			
	MW 10			
Jul-06	MW 8			
	MW 9			
	MW 10			
Aug-06	MW 8			
	MW 9			
	MW 10			
Jun-07	MW 8			
	MW 9			
	MW 10			
Jul-07	MW 8			
	MW 9			
	MW 10			
Nov-07	MW 8	10.5	10	14
	MW 9	15.9	1	5
	MW 10	17.6	9.1	17

SUMMARY OF ALTERNATIVE TREATMENT TECHNOLOGY USED WITH ON-SITE WASTEWATER RENOVATION SYSTEMS

Facility: Whitby School, Greenwich, CT

Permit Issuance Date: 12/30/02

Treatment Technology: Zenon

Pollutants Treated: BOD₅ TSS Nitrogen Phosphorus Fecal Coliform

Application: Institutional

Type: Treatment/Recycle

Class: New

Pretreatment discharge type: Constructed Fill

Point of Environment Concern: Toe of slope

Comments:

<u>Compliance summary (1/03 – 6/06)</u>	<u>Compliance Rate (%)</u>
Total nitrogen (max limit = 10 mg/l)	7 violations/78 tests 91
Total phosphorus (max limit = 15 mg/l)	0 violations/78 tests 100
Fecal coliform (avg limit = 4 col/100 ml)	2 violations/38 test months 95
BOD (avg. limit = 20 mg/l)	0 violations/38 test months 100
TSS (avg. limit = 20 mg/l)	0 violations/38 test months 100

Issues

- No significant issues.

Recommendations

- A letter is to be sent which cites the violations, requests that an explanation be provided, and reminds the permittee of violation reporting requirements.

Groundwater summary

- Total nitrogen and total phosphorus results indicate that groundwater is consistently within levels that are suitable for drinking without treatment. We will review sporadic elevated fecal coliform results as an issue of well construction, and do not believe there is a cause for concern. There were reporting issues with several monitoring periods that need to be addressed with the permittee.

Update (November 2006 – December 2007)

- 12/14/06 – The recommended letter was issued, and an appropriate response was received.
- Through December 2007, compliance with permit limits has been met for total nitrogen, total phosphorus, BOD, TSS and fecal coliform.

Groundwater summary

- Total nitrogen, total phosphorus and fecal coliform results indicate that groundwater is consistently within levels that are suitable for drinking without treatment.

**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Facility: Whitby School
Permit No.: UI0000355
Permit Issuance Date: 12/30/2002
Treatment Type: Zenon/Recycle

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	6600	4400	30	20	30	20	10	15	4
Sample Freq.	Daily		2/mo.		2/mo.		2/mo.	2/mo.	1/wk.
Jan-03	1	0	10*	6*	5*	5*	13.2	0.05*	0
Feb-03	0	0	2*	2*	5*	5*	11	0.05*	0
Mar-03									
Apr-03									
May-03	0	0	ND	ND	ND	ND	ND	ND	0
Jun-03	0	0	ND	ND	ND	ND	ND	10	0
Jul-03	0	0	ND	ND	ND	ND	17.7	ND	ND
Aug-03	0	0	ND	ND	ND	ND	6.23	ND	ND
Sep-03	0	0	5	2.5	ND	ND	1	0.5	0
Oct-03	84	23	4	2	10	5	2.17	7	ND
Nov-03	204	43	ND	ND	3.75	1.6	7.5	ND	0
Dec-03	751	157	ND	ND	ND	ND	2.45	ND	0
Jan-04	55	30	ND	ND	ND	ND	5.7	ND	0
Feb-04	179	25	0	0	0	0	9.88	0.97	0
Mar-04	25	2	ND	ND	ND	ND	1.8	ND	0
Apr-04	760	62	11	5.5	0	0	1.43	0	0
May-04	6.5	1	20.8	10	ND	ND	5.7	ND	0
Jun-04	26	9	ND	ND	10	5	2.45	ND	ND
Jul-04	40	6	ND	ND	40	25	1.95	1.2	0
Aug-04	26	10	ND	ND	10	5	12.4	8.22	0
Sep-04	215	25	3	3	ND	ND	ND	ND	0

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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	6600	4400	30	20	30	20	10	15	4
Oct-04	215	33	ND	ND	ND	ND	8.25	ND	50
Nov-04	29	9	4*	3.9*	5	3.5	2.18	0.047	RE
Dec-04	187	48	4*	4*	2	1	1.9	0.043	2.5*
Jan-05	137	43	4*	4*	1	0.5	ND	0.032	0
Feb-05	237	48	4*	4*	ND	ND	1.5	0.021	0
Mar-05	75	11	4*	4*	1	0.5	1.4	0.025	0
Apr-05	57	10	4*	4*	1	0.5	5	0.047	0
May-05	161	27	9.2	6.5*	7	4.5	3.3	0.065	0
Jun-05	1.5	0	39	21.5*	5	3*	17	0.084	0
Jul-05	0.025	0	4*	4*	5	3.5	3.3	0.17	0
Aug-05	0	0	4*	4*	5	4.5	1.3	0.18	0
Sep-05	0	0	4*	4*	4	4	5.2	0.86	0
Oct-05	145	27	4*	4*	7	7	11	0.12	0
Nov-05	71	20	4*	4*	4	2	19	2	0
Dec-05	161	31	4.9	4.4	2	1.5	1.3	0.079	0
Jan-06	790	163	4*	4*	2	1	7.9	0.022	29
Feb-06	187	17	4*	4*	2	1.5	16	0.076	0
Mar-06	992	138	4*	4*	3	3	7.4	0.086	0
Apr-06	0	0	4*	4*	7	5.5	4.3	0.032	0
May-06	30	16	4*	3*	8	5.5	0.15	0.05	0
Jun-06	2780	1538	4*	4*	2	2	ND	0.05	0
Jul-06	2043	1014	2*	2*	3	3	1	0.35	0
Aug-06	4020	1226	2*	2*	3	2.5	5	3.1	10
Sep-06	3420	2261	2*	2*	7	4	2	0.18	0
Oct-06	4890	2290	2*	2*	1	1	0.89	0.18	10*
Nov-06	5538	4015	2*	2*	1*	1*	3.22	0.34	0
Dec-06	3496	1926	2*	2*	1*	1*	2.96	1.8	2.5
Dec-06							0.24	0.11	
Jan-07	4329	1215	2*	2*	1*	1*	2.65	0.14	0

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WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF EFFLUENT MONITORING

Parameter	Flow		BOD ₅		TSS		Total Nitrogen	Total Phosphorus	Fecal Coliform
	Max. Daily (units)	Avg. Daily (gpd)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Avg. Monthly (mg/l)	Max. Daily (mg/l)	Max. Daily (mg/l)	Avg. Monthly (col/100ml)
Permit Limit	6600	4400	30	20	30	20	10	15	4
Jan-07							0.1	0.07	
Feb-07	7221	5982	2*	2*	1*	1*	0.7	0.16	0.5
Feb-07							0.32	0.05	
Mar-07	4598	3515	2*	2*	1*	1*	0.19	0.79	0
Mar-07							0.17	0.04	
Apr-07	4494	2831	2*	2*	4.5*	3	1.96	0.03	0
Apr-07							1.45	0.02	
May-07	3478	1382	2*	2*	1*	1*	2.48	0.04	1*
May-07							0.36	0.01	
Jun-07	1391	902	2*	2*	1*	1*	2.4	1.4	1*
Jun-07							1.9	0.23	
Jul-07	1391	748	4*	4*	2.5*	2.25*	3	0.26	0
Jul-07							2.43	0.08	
Aug-07	1495	954	4*	4*	1*	1*	1.16	0.26	0
Aug-07							0.88	0.03	
Sep-07	2655	1468	4*	4*	4*	3.2*	0.64	0.24	0
Sep-07							0.38	0.15	
Oct-07	2004	1176	9.7	6.8*	6	5.1	5.44	0.1	0
Oct-07							0.37	0.04	
Nov-07	926	426	4*	4*	2.5*	2.5*	0.69	0.13	1
Nov-07							0.67	0.06	
Dec-07	2217	577	4*	4*	2.5*	2.5*	3.14	0.64	0
Dec-07							2.95	0.45	

* Means less than the reported value.

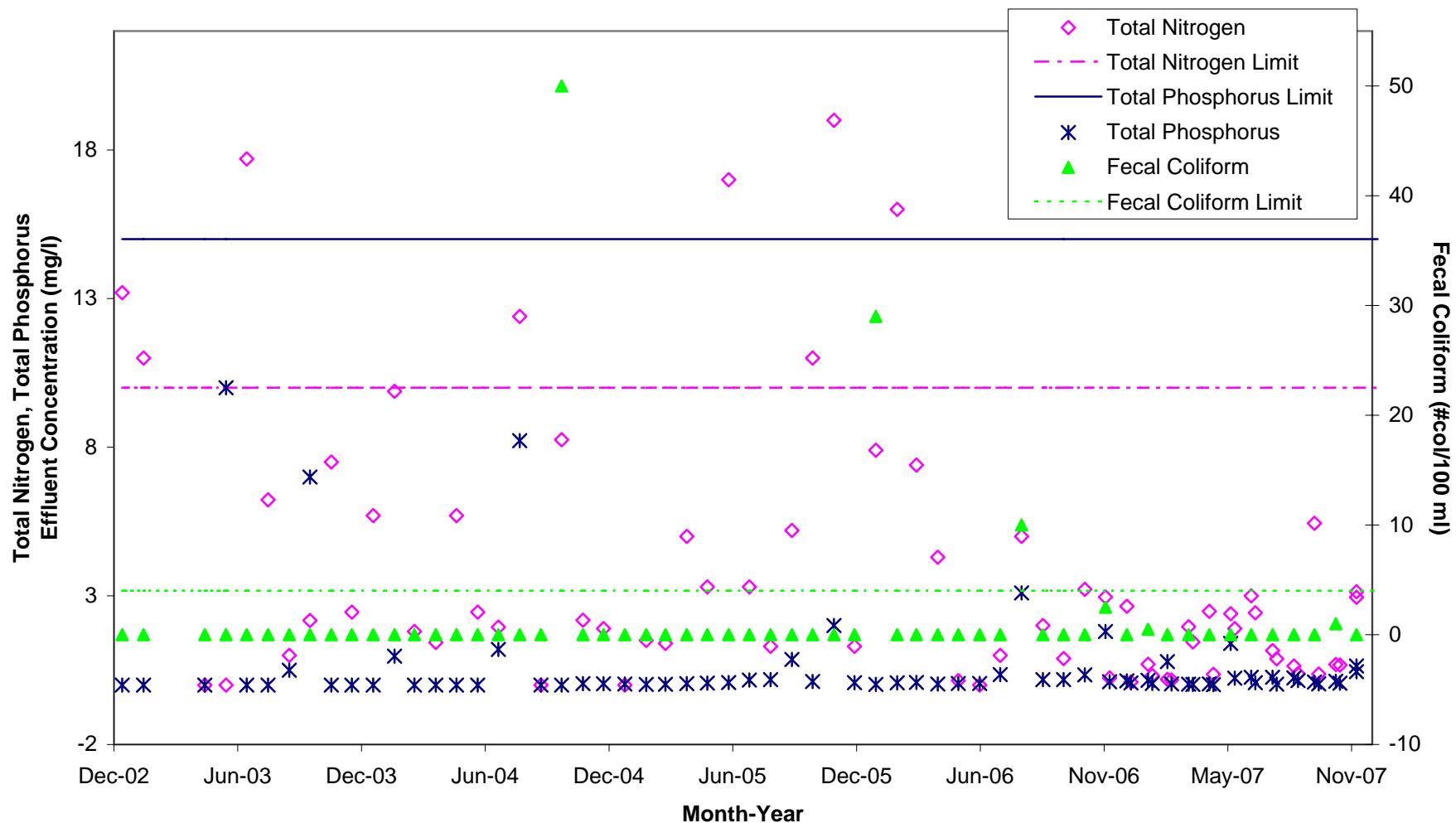
RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

RE Means reporting error. Results inconclusive.

Bold type means a violation of permit limit.

UI PERFORMANCE DATA: SUMMARY OF EFFLUENT MONITORING
JANUARY 2003 - DECEMBER 2007
PERMIT NO. UI0000355 - WHITBY SCHOOL



**CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
WATER PERMITTING AND ENFORCEMENT DIVISION**

UI PERFORMANCE DATA - SUMMARY OF GROUNDWATER MONITORING RESULTS

Facility: Whitby School
Permit No.: UI0000355
Sampling Frequency: Quarterly
No. of Monitoring Wells: 2
Review Period: 1/03-11/07

Sampling Month-Year	Monitoring Well Identification	Total Nitrogen	Total Phosphorus	Fecal Coliform
		(mg/l)	(mg/l)	(col/100ml)
May-03	GWMW 1	ND	0.99	0
	GWMW 2	5.5	ND	0
Jul-03	GWMW 1	ND	0.99	0
	GWMW 2	5.5	ND	0
Aug-03	GWMW 1	ND	ND	ND
	GWMW 2	4.38	ND	ND
Nov-03	GWMW 1	ND	ND	0
	GWMW 2	5.63	ND	0
Feb-04	GWMW 1	DRY	DRY	DRY
	GWMW 2	DRY	DRY	DRY
Mar-04	GWMW 1	ND	ND	0
	GWMW 2	1.9	ND	0
May-04	GWMW 1	0.55	0.76	0
	GWMW 2	2.2	ND	0
Aug-04	GWMW 1	2.35	0.5	0
	GWMW 2	ND	ND	16
Nov-04	GWMW 1	2.85	1.8	12
	GWMW 2	1.66	ND	6
Jan-05	GWMW 1	5.4	4	0
	GWMW 2	3.4	5.1	8
Apr-05	GWMW 1	ND	ND	2
	GWMW 2	1.59	0.29	6
Jul-05	GWMW 1	0.7	ND	0
	GWMW 2	2.2	ND	0
Oct-05	GWMW 1	ND	ND	53
	GWMW 2	1.9	ND	1
Feb-06	GWMW 1	0.21	0.03	0
	GWMW 2	4.35	0.01	0
Aug-06	GWMW 1	4.31	0.09	0
	GWMW 2	0.89	0.15	0
Nov-06	GWMW 1	0.93	0.34	0
	GWMW 2	4.32	0.06	3
Feb-07	GWMW 1	0.05*	0.3	0
	GWMW 2	2.75	2.7	0
May-07	GWMW 1	0.19	2.4	0
	GWMW 2	2.5	0.42	0
Aug-07	GWMW 1	2.06	0.98	0
	GWMW 2	2.74	0.63	0
Nov-07	GWMW 1	2.52	9.5	0
	GWMW 2	3.75	0.84	0